

# AGRICULTURAL OUTLOOK

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Economic Research Service  
United States Department of Agriculture

December 1993

PESTICIDE  
REGULATION

.....

A NEW PATTERN



# AGRICULTURAL OUTLOOK



Cover photo, Use of plastic mulch to control weeds and reduce water requirements. Jack Kelly Clark, courtesy University of California Statewide IPM Project.

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# News of Pesticide Regulation Proposal, Farmland Ownership & Tenure, Black Farmers, & Mexico's Ag Policy Reform

## Agricultural Economy

### *Farmland concentration to continue:*

The amount of farmland in the U.S. when the 20th century ends will be about the same as when it began, but farmland owners will number just half. Forty-one percent of U.S. farmers now rent all or part of the land they farm, according to results from a recent landownership study by USDA's Economic Research Service, based on Census of Agriculture survey data. In contrast with patterns in the first half of the century, more farmland is operated by renters, and half of U.S. farm landlords reside outside the communities where the farms are located. In the last half of this century, management decisions are more often made by the renter or jointly with the landlord—rarely by the landlord alone.

## Rural Development

### *Profiling African American farmers:*

Black farmers in the U.S. operated 1 percent of the farms (23,000), farmed less than 1 percent of the farmland, and generated less than 1 percent of farm product sales reported in 1987, according to the most recently available Census of Agriculture data.

Similar to U.S. farmers overall, most African American farmers specialized in livestock production and cash grains. The majority of black-operated farms and farm acreage remains in the South, with Texas and Mississippi ranking highest. Black farmers are much more likely to own all or part of the farmland they operate than in earlier decades. However, black-owned holdings are likely to be small—averaging 65 acres—and the average size of all farms operated by African Americans is only 115 acres, about one-fourth the national average.

Based on the overall rate of farm loss in the U.S. during the 1990's—about 1.1 percent annually—ERS estimates that at least 1,300 more black-operated farms have exited since 1987.



## World Agriculture & Trade

*Mexico to cut ag price subsidies:* In October, Mexico announced a new agricultural policy program—PROCAMPO—designed to move its farm sector in a more market-oriented direction, and along with NAFTA, to continue Mexico's trade liberalization. PROCAMPO will replace Mexico's current farm support system, which fixes prices for some commodities well above international levels, with a direct subsidy payment program based on historical planted acres of program crops. PROCAMPO will be phased in gradually in 1993/94 and be fully operational by 1995, with payment levels to producers fixed (in real terms) for 10 years and then phased out over the following 5 years.

An analysis by USDA's Economic Research Service indicates that Mexico's PROCAMPO reform plan will lead to lower producer and consumer prices for all crops participating in the program. For example, lower domestic producer prices will result in a decrease in area planted to corn, Mexico's largest crop, and will lower production levels, raise consumption, and increase reliance on corn imports.

## Commodity Spotlight

*Regional dairy shift accelerates:* The pace of the U.S. dairy industry's long-term shift to the West accelerated in 1993, as the number of dairy cows declined in the upper Midwest and the South, and climbed in the Mountain and Pacific regions. This year's largely offsetting shifts have not significantly affected the slow historic decline in U.S. cow numbers. However, these shifts have strained dairy product manufacturing capacity in some areas, left excess capacity in others, diminished the flexibility to shift milk among products, and altered wholesale product flows. The Western dairy operations—which now produce over a fourth of the U.S. milk supply—are holding down their costs with advantages of climate, steady forage supplies, size, and specialization.

## Environment & Resources

*Pesticide policy changing:* The Clinton Administration's proposed overhaul of pesticide laws includes promotion of pest control with fewer pesticides, gives Federal regulators greater flexibility to modify pesticide use, and provides incentives to develop reduced-risk methods of pest control. The plan would also replace the current legislation's divergent standards for setting pesticide tolerances with a single, health-based, negligible-risk standard to apply to both fresh and processed foods.

The proposal—which addresses public concerns that pesticide risks are currently too high—would probably lower risks to consumers and may reduce risks to farmers, farmworkers, and the environment. However, producers could face higher pest control costs and reduced agricultural productivity, at least in the short term. The proposal contains provisions to offset the effect on producers—among these are incentives to develop nonchemical pest control practices, reduced-risk pesticides, and new pesticides for "minor use" crops such as fruits and vegetables.

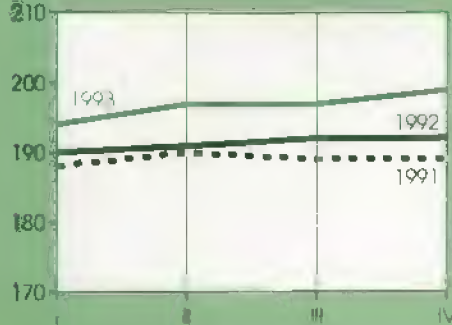


## Agricultural Economy

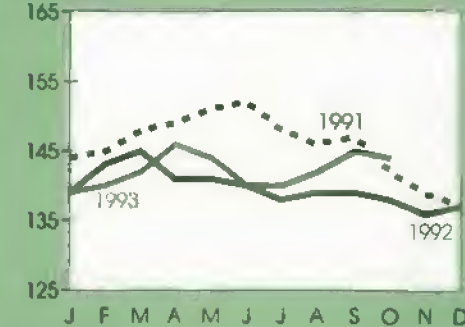
## Prime Indicators

Index of prices paid by farmers

1977=100

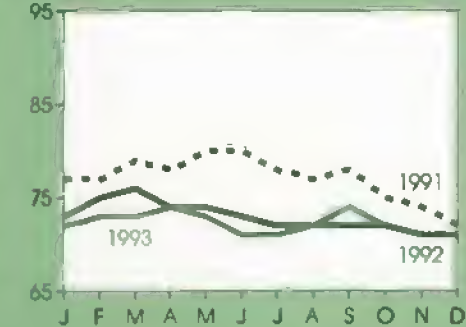
Index of prices received by farmers<sup>1</sup>

1977=100

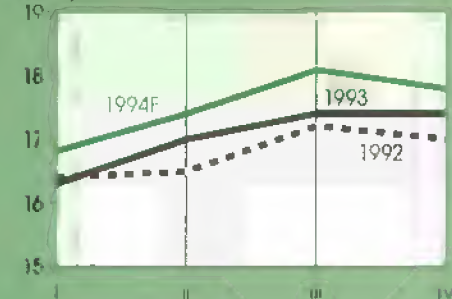


Ratio of prices received/prices paid

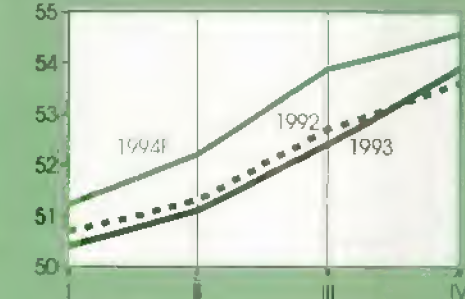
Percent

Total red meat & poultry production<sup>2</sup>

Billion pounds

Red meat & poultry consumption, per capita<sup>2,3</sup>

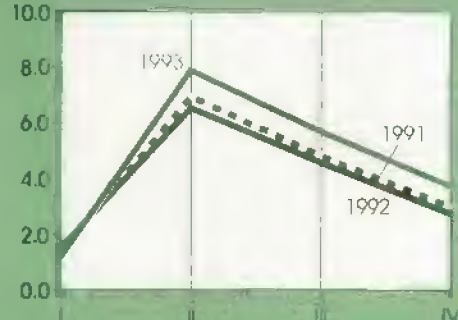
Pounds

Cash receipts from livestock & products<sup>4</sup>

\$ billion

Corn beginning stocks<sup>5</sup>

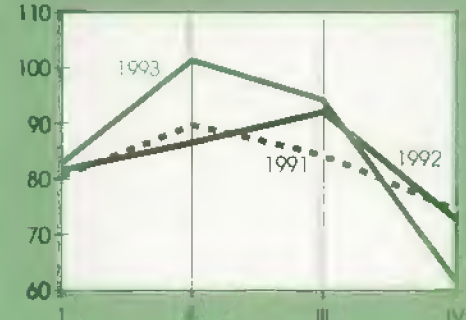
Billion bushels

Corn disappearance<sup>5</sup>

Billion bushels

Cash receipts from crops<sup>4</sup>

\$ billion



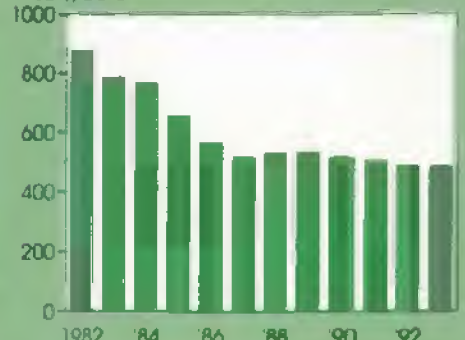
Farm loan interest rates

Percent



Average real value of farm real estate

1982 \$/acre



Farm value/retail food costs

Percent



<sup>1</sup> For all farm products. <sup>2</sup> Calendar quarters. Future quarters are forecasts for livestock, corn, and cash receipts. <sup>3</sup> Retail weight. <sup>4</sup> Seasonally adjusted annual rate. <sup>5</sup> I=Sept.-Nov.; II=Dec.-Feb.; III=Mar.-May; IV=June-Aug. Marketing years ending with year indicated. F=forecast.





## U.S. Farmland Ownership: A Century Of Change

**T**he amount of farmland in the U.S. when the 20th century ends will be about the same as when it began, but farmland owners will number just half. With declining numbers of owners, and overall growth of the U.S. population, farmland is increasingly concentrated in the hands of proportionately fewer owners.

Because agriculture occupies about two-thirds of America's private land—over 90 percent, if forestry is included—the condition and accessibility of much of the nation's land resources depend on the patterns of farmland ownership. As agriculture faces environmental demands—regarding water quality, flood protection, wildlife maintenance, and preservation of open space—the implications of land use decisions are coming under increased scrutiny. The organization and characteristics of farm ownership and operation have important implications for how decisions are made about land use, land investments, and the distribution of benefits and costs of agricultural landholding.

### Changes in Ownership & Leasing

The changing patterns of landownership during this century reflect sweeping changes in agriculture's technology and tenure, and in the economy and society generally. By 1900, U.S. settlement was mostly complete, although land in farms continued expanding slowly until midcentury. The number of farm operators substantially exceeded the number of farmland owners during the first half of the century. The sharecropper tenure system—a relic of post-Civil War Reconstruction which tied many tenants to a few large owners—began to recede only after the 1930's.

Numbers of both farmers and owners had begun to decline after the 1920's, except for the halt in off-farm migration during the high-unemployment years of the 1930's. Around World War II, mechanization supported outmigration from agriculture, and started a steep decline in the number of U.S. farms. The decline continues today, although at a slower rate.

Results from a recent landownership study by USDA's Economic Research Service, based on Census of Agriculture survey data, indicate that while ownership continues to concentrate, many of the landholding patterns present early in the century are reversed today.

**Farmland owners now outnumber operators.** The number of farms (and

farm operators) rose from 5.7 to 6.5 million between 1900 to 1920, then began decreasing in the 1920's, before peaking at 6.8 in 1935. The number of farms has fallen steadily since, to about 2 million at the last census count in 1987. Farmland owners numbered fewer than operators until midcentury, after which more farmers gave up farming than owners gave up farmland ownership. By 1988, the year of the Census of Agriculture's Agricultural Economics and Land Ownership Survey (AELOS), farmland owners outnumbered operators 3 to 2.

**Farmland ownership continues to concentrate.** Half of the nation's farmland acreage is now owned by less than 5 percent of the landowners. At the other end of the scale, less than 8 percent of farmland acreage is held by the half of owners with the smallest holdings. Much of the variation in sizes of landholdings stems from the differences in quality and location for various types of agriculture.

As a form of wealth, farmland is also increasingly concentrated. According to the AELOS survey, the top 2 percent of owners in terms of real estate value—owners holding farmland and buildings of \$1 million or more—hold 25 percent of the value. Holders of farm real estate of less than \$70,000 represent 37 percent of owners, but only 8 percent of the value.

Because real estate—land and buildings—represents over 70 percent of the value of assets in farming, the concentration of

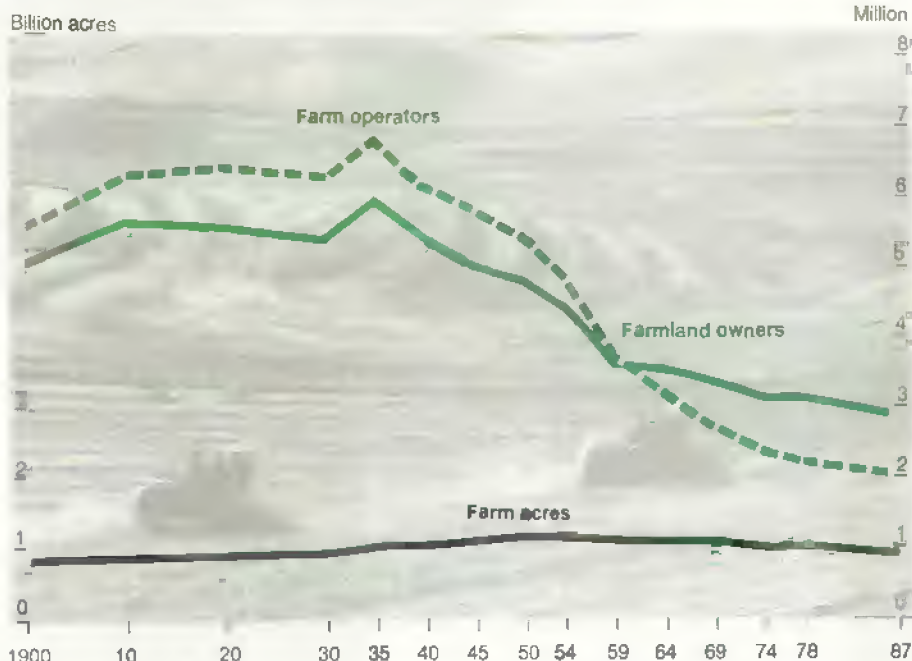
#### Less than 2 Percent of Owners Control Over a Thlrd of U.S. Farmland

	Ownership distribution		
	Owners	Farmland acreage	Value
Percent			
Acres owned,			
1-9	6.4	0.1	1.8
10-49	24.0	2.2	9.0
50-99	18.7	4.8	9.7
100-179	19.7	9.5	14.0
180-259	9.7	7.4	9.8
260-499	11.1	13.9	16.7
500-999	6.2	14.9	14.3
1,000-1,999	2.7	12.8	10.9
2,000 or more	1.5	34.4	13.9



## Agricultural Economy

### Farmland Owners Have Outnumbered Operators Since 1959



\*Farmland owners\* include owners who do not operate their farms, as well as owner-operators.

\*Farm operators\* include tenants, full owners, and part owners.

landownership does have an important bearing on agriculture's organizational structure, production decisions, and distribution of wealth and income. However, agricultural land represents a small and declining proportion of the national wealth, and holdings of agricultural land have relatively little influence on the overall concentration of wealth in the nation.

*The landlord-tenant power balance has tipped toward the tenant.* About 41 percent of U.S. farmers now rent all or part of their farms. These farmers control—through ownership or lease—67 percent of the land in farms and produce over 60 percent of the value of agricultural sales.

This large presence of renters symbolizes the shift in the relationship of landlords to tenants since midcentury. Expansion of farm size, reduced farm population, and the growing proportion of owners who have retained their holdings to later ages have created a more favorable position for leasing as a management tool. The enhanced status of leasing—and larger proportion of landlords—is part of the new reality of farm organization in the last half of this century.

*Landlords have given way to landladies.* Individuals and families comprise 85 percent of farm landlords (the census designation for a landowner who rents out land is a landlord). Among this group of landlords, 40 percent are women, 31 percent are men, and 29 percent are joint owners. The remaining 15 percent of owners are nonfamily partnerships, corporations, or other forms of organization. A typical landlord is also most likely:

- a nonfarmer (9 out of 10),
- white (98 out of 100),
- 60 years or older (2 out of 3), and
- owner of less than 180 acres (2 out of 3).

About 36 percent of landlords live on their farmland, while 44 percent live in a city, town, or urban area. Another 19 percent live on another farm or elsewhere in a rural area. Only 2 percent of landlords are nonfamily corporations, holding 7 percent of landlord-owned farmland.

*Half of U.S. farm landlords reside outside their community.* Landlords draw more than \$8 billion in net rents from farming, according to USDA sources. AELOS data suggest that at least half of landlords reside in a jurisdiction other than where their land is located, and their income from rents may be transferred from the farm community to the landlord residence community. On the other hand, landlords make capital improvements and pay taxes, resulting in transfer of income back to the farm community. Landlord ownership of farmland implies substantial intersectoral and interhousehold transfers of income and wealth.

*Owners and renters share management decisions.* Most landlords (88 percent) rent to only one renter. Landlord-tenant relations, therefore, are likely to be personal and direct. Management decisions such as crop variety, cultivation, and harvesting are made by the renter or jointly with the landlord, but rarely by the landlord alone. Landlords decide on major land uses such as crop versus woodland or pasture, investments in structures and land, and who operates the farm.

*Farmland is increasingly owned by nonfarmers.* AELOS reported that 44 percent of farmland owners were not farmers, and that 41 percent of farmland was not owned by farmers. Thus, the population that is using and investing in farmland greatly exceeds the number of farms or farmers, and recent trends indicate an increasing proportion of farmland ownership by nonfarmers. More and more of the small and shrinking minority controlling farmland consists of nonfarmers.

### Leasing & Concentration To Continue

Ownership of farmland changes hands on about 3.5 percent of the acreage annually, on average, or the equivalent of a complete turnover in about 30 years. Over 40 percent of transfers, whether by sale, inheritance, or gift, are made within families. The total number of owners is decreasing, but if farms continue to consolidate faster than owners relinquish their land, the proportion of owners to farms will continue to increase.



Since midcentury, employment and investment alternatives to farming have reduced pressure to enter agriculture. Retirement from agriculture, extended life expectancy, and migration have left many owners with an interest in land that is being combined into larger operating units.

The necessity of landownership to secure access to farmland to operate has diminished. Machinery, buildings, and high-tech expenditures compete for farm operators' funds for investment. Compared with the early-century era of sharecroppers and tenants, the balance of economic power has shifted from farmland owners in favor of farm operators.

Current trends suggest increased ownership of farmland by those who do not farm, with a higher ratio of nonfarmer owners to farm operators. Widespread

farmland ownership along with land-to-the-tiller was a primary objective of land policy at one point, but is now infeasible given the current structure of agriculture, nor is ownership necessary for access to profitable farming.

[Gene Wunderlich (202) 219-0425] AO

## Field Crops Overview

*The U.S. corn harvest is behind schedule and the crop is forecast to be the smallest since 1988. Soybean production is forecast to be the smallest in recent years, causing ending stocks to fall and prices to rise. Harvest of the 1993/94 spring wheat crop was delayed. Rice prices are forecast much higher—the result of large anticipated sales to Japan. Cotton yields are forecast below a year earlier, but harvesting continues ahead of normal and acreage is up.*

*Global rice production is forecast down from last year and trade is to be record-high in calendar-year 1994. World wheat production is forecast down fractionally from last year. Coarse grain trade is also forecast down from last year.*

### Domestic Outlook—November Projections For 1993/94

#### Corn Harvest Behind Schedule

The corn harvest was well behind schedule across Indiana, Illinois, Iowa, and Minnesota. The 1993/94 crop is forecast to be the smallest since 1988. With production forecast to drop more than use, ending stocks are expected to decline to their lowest level in many years and prices to rise significantly.

- Yield is forecast 22 percent below last year's record, due to late maturation, adverse weather, insects, and drought.
- Harvested acreage is forecast at 63.1 million acres, down 9 million from 1992/93. On some flooded acres, farmers have destroyed crops to qualify for the 0/92 program.
- Corn production is forecast to be 6.5 billion bushels in 1993/94, the lowest since 1988/89.
- Total use is expected to drop 8.5 percent from last year, with exports off 18.8 percent and accounting for half the decline in total use.
- Ending stocks are forecast at 881 million bushels, down from 2.1 billion last year and the lowest since 1975/76.
- The average farm price for 1993/94 is forecast at \$2.35-\$2.75 per bushel, up from last year's \$2.07.

#### Soybean Prices Forecast Up

Lower harvested acreage and adverse weather have reduced soybean production in 1993/94, forecast to be the lowest since 1988/89. With total use forecast to fall less than production, ending stocks are expected to drop and prices to rise.

- Harvested acreage is forecast at 56 million acres, the lowest in 17 years. The average yield is forecast at 32.7 bushels per acre, the lowest since 1988/89. Adverse weather has caused yields to drop more than 20 percent in some states.
- Soybean production is forecast at 1.83 billion bushels, 16 percent below last year's near-record crop, but only 150 million bushels below 1991/92.

### Read More About It

The research results on the acquisition, leasing, and ownership of farmland in the U.S. cited in this article are discussed in detail in the following reports by USDA's Economic Research Service:

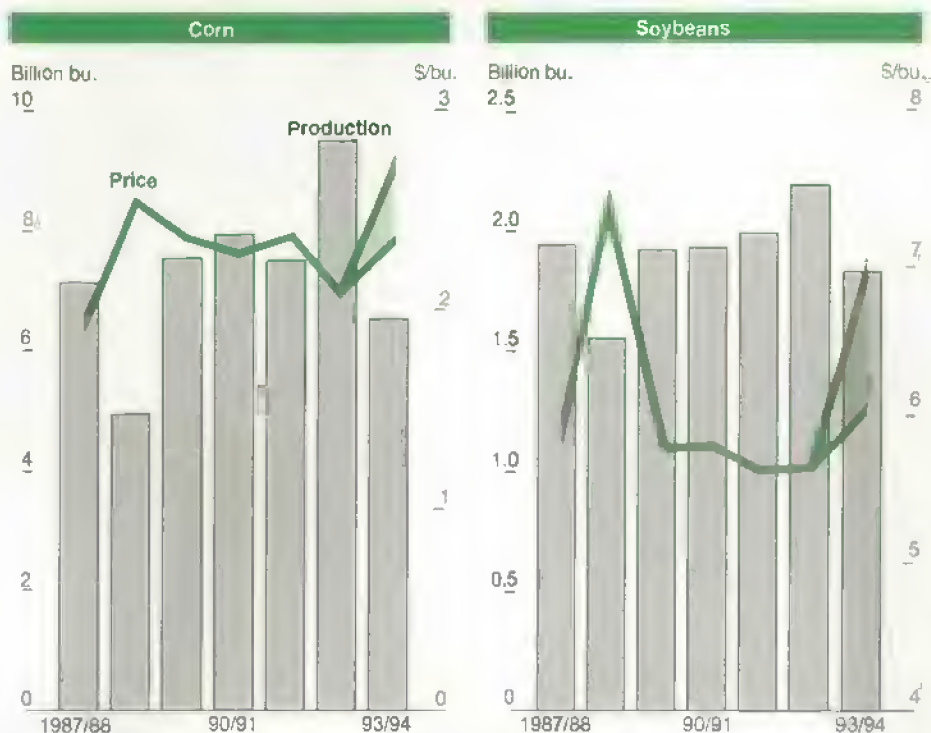
- *Acquiring Farmland in the United States*, ERS Report No. AIB-682, September 1993 (\$9 per copy)
- *Leasing Farmland in the United States*, ERS Report No. AGE-9159, December 1991 (\$4 per copy)
- *Owning Farmland in the United States*, ERS Report No. AIB-637, December 1991 (\$4 per copy)
- *Women Farm Landlords in the United States*, ERS Report No. AIB-681, November 1993 (\$7.50 per copy).

Call 1-800-999-6779 to order these reports.



## Agricultural Economy

### Higher Prices Reflect Decline in Corn and Soybean Output



Season-average farm price. 1993/94 projections. September-August marketing year.

- Total use is forecast at 1.96 billion bushels in 1993/94, down from 2.18 billion last year, with exports dropping the farthest.
- Ending stocks are forecast to be 170 million bushels, down 42 percent from a year earlier. Since 1980, ending stocks had fallen below 200 million bushels only twice—1983/84 and 1988/89, both drought years.
- Annual average soybean farm prices are forecast to be \$6-\$7 per bushel, up from \$5.60 in 1992/93.

### Wheat Stocks Higher, Prices To Drop

Forecast production for all wheat is slightly below a year earlier, the result of reduced yields. Harvesting of spring wheat was significantly delayed, and disease in the Northern Plains caused late-season yields to fall sharply from earlier forecasts. Forecasts for planted and harvested acres for winter wheat have been lowered in some key states, including

Kansas, Nebraska, and Missouri, where planting and harvesting were hampered by rain delays and flooding. Slightly larger supplies and reduced exports are increasing ending stocks and lowering farm prices. The 1994/95 winter wheat crop is emerging on schedule.

- Average yield, estimated at 38.4 bushels per acre, is 1 bushel below a year earlier, but still one of the highest on record. Disease in the Northern Plains caused yields to drop sharply below earlier forecasts.
- Harvested acreage was 63 million acres, up from 62.4 million in 1992/93.
- Production is estimated at 2.42 billion bushels, slightly below 1992/93, and 441 million bushels above 1991/92.
- Total use is forecast at 2.35 billion bushels, the lowest since 1989/90. The decline is the result of decreased exports, brought on by large global production which has resulted in re-

duced import demand and increased competition from foreign exporters.

- Ending stocks are forecast at 682 million bushels, up from 529 million in 1992/93.
- Average farm prices are forecast at \$2.85-\$3.10 per bushel for 1993/94, down sharply from \$3.24 for 1992/93.

### Imports by Japan Raise Rice Prices

U.S. rice production in 1993/94 is forecast to fall, as both harvested acres and yield are down from last year. Smaller supplies and increased use in 1993/94 will result in sharply higher average farm prices. Also contributing to the increase in U.S. prices are smaller world supplies, increased global trade including purchases by Japan, and higher world trading prices.

- All major rice producing states, except California, are forecast to harvest fewer acres in 1993/94 than last year.
- Average yield is forecast at 5,511 pounds per acre, down over 200 pounds from the previous year's near-record. Planting delays due to heavy spring rain, and less-than-ideal weather during the growing season, explain this year's forecast yield declines.
- Production is forecast at 162 million cwt, a decline of more than 17 million cwt from last year, but the third largest ever.
- Domestic use and residual is forecast at 99.5 million cwt, up 3.4 million cwt from 1993/94. Exports are forecast at a near-record 85 million cwt, due to expected large sales to Japan.
- Ending stocks are forecast to decline to 23.6 million cwt. At 12.8 percent, the stocks-to-use ratio for 1993/94 would be the lowest since 1980/81.



- Reflecting tightening supplies, the forecast average farm price for 1993/94 is \$8-\$9.50 per cwt, far above the 1992/93 average of \$5.90 per cwt.

### Lower Yields Limit Cotton Output

Cotton yields continue to decline in many states, but production remains slightly above last year as a result of increased acreage. Ending stocks for 1993/94 also are slightly larger. The harvest is generally ahead of schedule.

- Harvested acreage for 1993/94 is projected at 13.2 million acres, up from 11.1 million last year. Average cotton yields are placed at 594 pounds per harvested acre, 105 pounds below last year.
- Production is forecast at 16.3 million bales, compared with 16.2 million for 1992/93.
- September mill use was down slightly from August at 39,225 bales. Cotton exports for 1993/94 are pegged at 5.9 million bales, almost 13.4 percent above last year.

- With production slightly exceeding total use, ending stocks are forecast to increase for the fourth year in a row to 4.9 million bales, up from 4.66 million in 1992/93. The estimated stocks-to-use ratio is about 30 percent, nearly unchanged from 1992/93.
- About 83 percent of the crop was harvested by November 14, ahead of the historical average of 73 percent.

[Jim Cole (202) 219-0840]

### Global Market: Outlook For 1993/94

#### Rice Supplies Tighten Further

Recently, projections for rice output declined for the U.S., Japan, Thailand, the Philippines, and Italy, further pulling down projections for world output in 1993/94. China's and Korea's smaller crops also are factors in the lower world output in 1993/94. As production prospects drop, available supplies continue to tighten, and anticipated import demand, especially from Japan, rises further.

- Global rice production is now projected 2 percent below last year, and output in Thailand and the U.S.—major exporters—is off 1 and 10 percent.
- Calendar-year 1994 world imports are expected to rise to a record 15.4 million tons, up 10.3 percent from last year.
- Japan's projected imports have been raised to 2 million tons, 1.8 million in calendar 1994 and the rest this year.
- U.S. exports are now projected at 2.8 million tons in calendar 1994, up 12 percent from last year, putting U.S. share of the world market at 18.2 percent.

### U.S. Field Crops—Market Outlook at a Glance

	Area		Yield	Output	Total supply	Domestic use	Exports	Ending stocks	Farm price
	Planted	Harvested							
	— Mil. acres —		Bu/acre			Mil. bu			\$/bu
<b>Wheat</b>									
1992/93	72.3	62.4	39.4	2,459	3,001	1,118	1,354	529	3.24
1993/94	72.1	63.0	38.4	2,422	3,036	1,229	1,125	682	2.85-3.10
<b>Com</b>									
1992/93	79.3	72.1	131.4	9,479	10,586	6,810	1,663	2,113	2.07
1993/94	73.7	63.1	103.1	6,503	8,631	6,400	1,350	881	2.35-2.75
<b>Sorghum</b>									
1992/93	13.3	12.2	72.8	884	937	478	277	175	1.89
1993/94	10.7	9.7	63.6	620	795	460	250	78	2.15-2.55
<b>Barley</b>									
1992/93	7.8	7.3	62.5	458	598	366	80	151	2.05
1993/94	7.9	7.1	58.9	416	592	390	85	117	1.95-2.15
<b>Oats</b>									
1992/93	8.0	4.5	65.6	295	477	358	6	113	1.32
1993/94	7.9	3.8	54.6	208	401	305	5	91	1.35-1.45
<b>Soybeans</b>									
1992/93	59.3	58.2	37.6	2,188	2,468	1,406	770	292	5.60
1993/94	59.5	56.0	32.7	1,834	2,131	1,336	625	170	6.00-7.00
		Lb/acre				Mil. cwt (rough equiv.)			\$/cwt
<b>Rice</b>									
1992/93	3.17	3.13	5,722	179.1	212.6	96.1	77.0	39.4	5.90
1993/94	3.02	2.94	5,511	162.0	208.2	99.5	85.0	23.7	8.00-9.50
		Lb/acre				Mil. bales			¢/lb
<b>Cotton</b>									
1992/93	13.2	11.1	699	16.2	19.9	10.3	5.2	4.7	54.60*
1993/94	13.7	13.2	594	16.3	21.0	10.3	5.9	4.9	**

Based on November 9, 1993 World Agricultural Supply and Demand Estimates: U.S. marketing years for exports 1992/93 estimates 1993/94 projections

\*Weighted-average price for August 1-April 1; not a season average.

\*\*USDA is prohibited from publishing cotton price projections

See table 17 for complete definition of terms

## Agricultural Economy

### Global Corn Crop To Drop Nearly 14 Percent

	Year <sup>1</sup>	Production	Exports <sup>2</sup>	Consumption <sup>3</sup>	Carryover
Million tons					
Wheat	1992/93	560.6	109.4	548.0	141.3
	1993/94	559.4	99.4	561.5	139.1
Corn	1992/93	529.0	60.3	506.8	101.4
	1993/94	455.5	55.6	492.5	64.4
Barley	1992/93	165.5	15.1	166.2	31.1
	1993/94	169.7	17.5	169.2	28.7
Rice	1992/93	351.1	13.9	354.3	51.6
	1993/94	343.9	15.4	355.1	40.4
Oilseeds	1992/93	226.6	37.6	184.7	23.5
	1993/94	223.5	36.9	185.8	20.7
Soybeans	1992/93	116.5	29.5	96.6	20.8
	1993/94	111.2	28.6	96.6	17.6
Soybean meal	1992/93	76.8	27.8	75.5	3.5
	1993/94	76.6	27.9	76.4	3.5
Soybean oil	1992/93	17.3	4.4	17.4	1.8
	1993/94	17.5	4.3	17.6	1.5
Million bales					
Cotton	1992/93	82.5	24.8	86.0	38.5
	1993/94	82.6	26.6	86.7	34.0

<sup>1</sup> Marketing years are: wheat, July-June; coarse grains, October-September; oilseeds, soybeans, meal, and oil, local marketing years except Brazil and Argentina adjusted to October-September trade; cotton, August-July. <sup>2</sup> Rice trade is for the second calendar year. All trade now has been inflated to include trade among the countries of the former Soviet Union. In addition, for the first time, rice trade, like other grain trade, excludes intra-EC trade. Oilseed and cotton trade, however, still include intra-EC trade. <sup>3</sup> Crush only for soybeans and oilseeds.

### World Wheat Output Drops Fractionally

The world wheat production forecast for 1993/94 was recently reduced, and output is now projected to decline fractionally from the previous season. Russia and Kazakhstan accounted for most of the recent reduction, reflecting wet harvest weather. Despite lower production, a further reduction in Russian imports, given expectations of lower consumption and limited financial resources, continues to be a factor in weak world demand. With large carryin supplies in major exporting as well as many major importing countries, available wheat for export remains strong.

- World wheat production is forecast down 0.2 percent from 1992/93.

- Expected Russian imports fall to 8.3 million tons, a 41-percent drop from last year.
- U.S. 1993/94 exports are forecast at 30.5 million tons, down 18 percent from last year, and the U.S. market share drops to 30.7 percent.

### Market Weakens For Coarse Grains

The significant downward adjustment in the U.S. corn outturn recently helped push forecasts for 1993/94 global coarse grain production down further. As with wheat, reduced output of coarse grains in Russia and Kazakhstan—primarily barley—also contributed to the recent downward adjustment. Global import demand remains very weak and U.S. corn exports

are projected down further, as expected exports from China, Argentina, South Africa, and the European Community (EC) rise.

- World coarse grain production is now projected to drop 9 percent from last year's, with corn output declining 14 percent and barley rising fractionally.
- Global corn exports in 1993/94 are projected down 8 percent from last year.
- At 34.5 million tons, projected U.S. corn exports are off 18 percent from last year and account for a smaller share, 62.1 percent, of world trade.
- South Africa reenters the market in 1993/94 with corn exports of 1 million tons. China's corn exports are projected up 538,000 tons from the 1992/93 record, while Argentina's exports rise 1.25 million tons and the EC's rise 500,000 tons.

### Soybean Output Drops Further

Forecast 1993/94 world oilseed output recently slipped further, primarily because of another large drop in projected U.S. soybean outturn. Recent global production forecasts for peanuts rose because of gains in China, while forecast global cottonseed production dropped because of reduced gains in the U.S. and Pakistan. Rapeseed and sunflowerseed production is expected to remain up in 1993/94 compared with last season, cottonseed to be approximately unchanged, and peanuts to drop slightly—but the significant decline in soybeans pulls overall oilseed output down from 1992/93.

The U.S. accounts for most of the drop in world soybean production from last year. South America is expecting a second consecutive record soybean crop. Brazil's planted area is likely to increase due to higher soybean prices in 1993, and Argentina's planted area could still benefit further from lower corn and sunflower sowing. Weaker world imports of soybeans and soybean products in 1993/94,

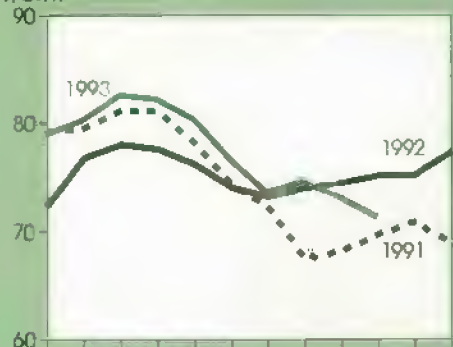


## Commodity Market Prices

## Agricultural Economy

Choice steers, Nebraska

\$/cwt.



Broilers, 12-city average

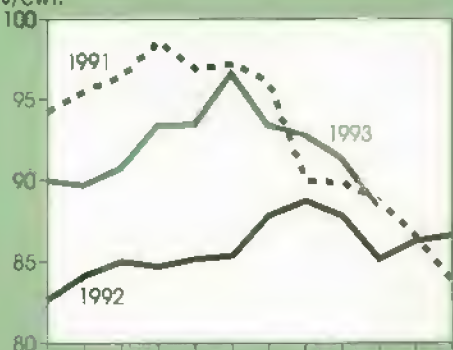
Cents/lb.

Corn, Central Illinois<sup>1</sup>

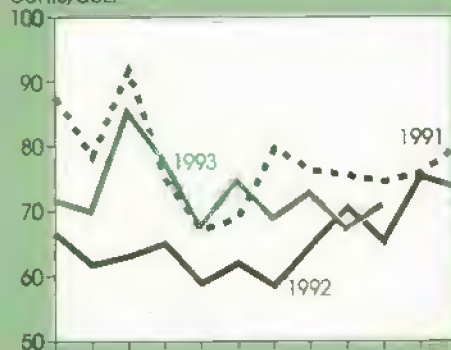
\$/bu.

Medium steers, Oklahoma City<sup>2</sup>

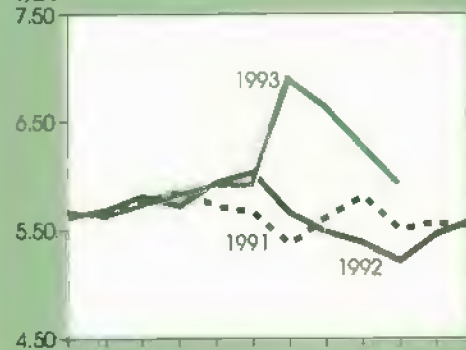
\$/cwt.

Eggs, New York<sup>3</sup>

Cents/doz.

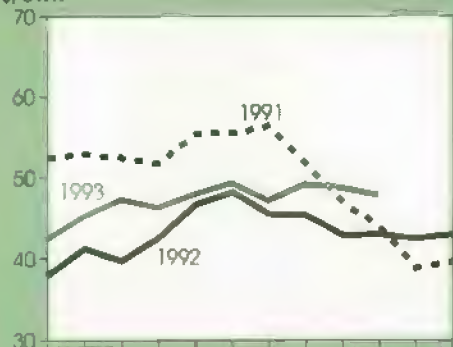
Soybeans, Central Illinois<sup>4</sup>

\$/bu.

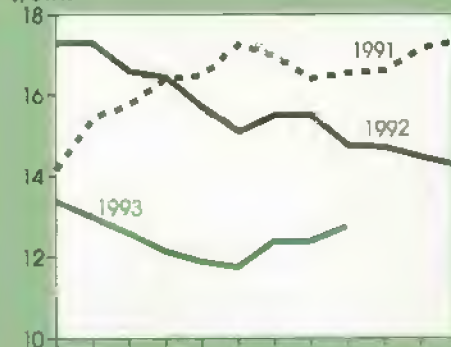


Barrows and gilts, 6 markets, Omaha

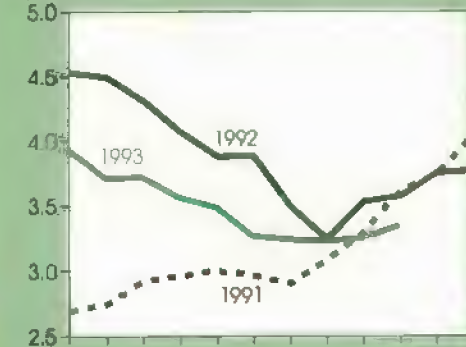
\$/cwt.

Milled rice, SW Louisiana<sup>5</sup>

\$/cwt.

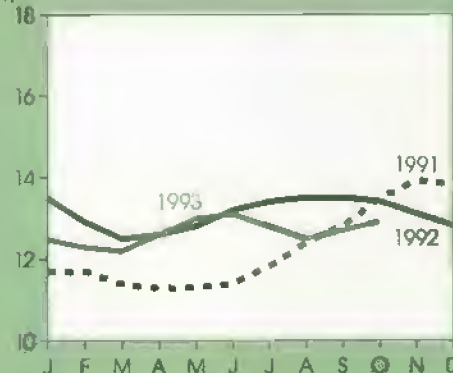
Wheat, Kansas City<sup>6</sup>

\$/bu.



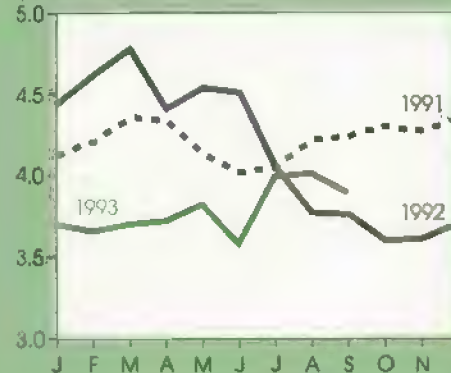
All Milk

\$/cwt.



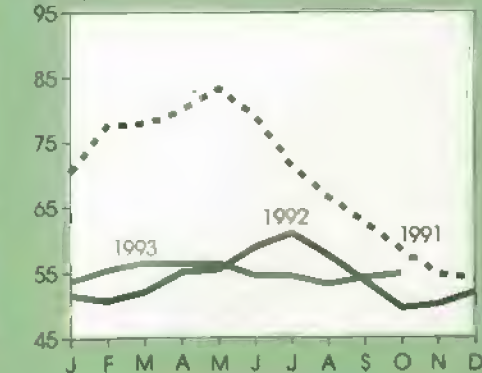
Sorghum, Kansas City

\$/cwt.



Cotton, average spot market

Cents/lb.



<sup>1</sup>No. 2 yellow. <sup>2</sup>600-700 lb. medium no.2. <sup>3</sup>Grade A large. <sup>4</sup>No. 1 yellow. <sup>5</sup>U.S. No.2 long-grain. <sup>6</sup>No. 1 HRW.

## Agricultural Economy

combined with lower U.S. output, likely will lead to the smallest U.S. share of soybean and soybean meal exports ever.

- Global soybean production is down 4.6 percent in 1993/94. Production in Brazil and Argentina are forecast at 23 and 12 million tons, compared with 22.3 and 11 million in 1992/93.
- U.S. 1993/94 soybean exports are expected to decrease 18.8 percent, to 17 million tons, and soybean meal exports likely will drop 19.3 percent, to 4.63 million tons.
- The U.S. share of the world soybean export market drops to 59.5 percent in 1993/94, and falls to 16.6 percent of the soybean meal market.
- India's soybean meal exports are projected at a record 2.5 million tons, up 32 percent from 1992/93 and 112 percent from 1991/92. China's soybean meal exports are forecast up 33 percent from last year, but are down 43 percent from 2 years ago.
- While 1993/94 sunflowerseed and rapeseed production rebound 6 and 3.5 percent from last year, cottonseed production remains at 31.5 million tons, and peanut output drops only 1.5 percent.

### World Cotton Output Stable in 1993/94

Global cotton production is still expected to be virtually unchanged in 1993/94 from last year as recent changes in production forecasts for several countries proved offsetting. China's forecast was raised recently as continued good weather improved yield prospects, while Pakistan's was lowered due to a white fly infestation and leaf curl virus. Poor weather also cut the U.S. crop.

Prospects for greater world use continue to slip, and consumption is now expected to be only fractionally higher than last season. However, world trade is still expected to rise.

- China's production is projected at 19 million bales, compared with 20.7 million last year; Pakistan's outturn is forecast at 7.8 million bales, up from 7.1 million in 1992/93.
- Global exports are expected to rise 7.5 percent in 1993/94.
- U.S. exports are forecast at 5.9 million bales, 13.5 percent above last season. The U.S. share of world trade rises to 22.2 percent, up from 21 percent last season. Foreign exports are expected to rise 5.9 percent to 20.7 million bales in 1993/94.

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#### Upcoming Reports from USDA's Economic Research Service

December release dates for ERS situation and outlook report summaries (issued at 3 p.m. ET) and for updates

#### December

- |    |   |
|----|---|
| 1  | <b>OUTLOOK CONFERENCE</b>                 |
| 10 | Dairy                                     |
| 13 | Agricultural Income & Finance             |
| 14 | Sugar & Sweetener                         |
| 15 | Industrial Uses of Agricultural Materials |
| 16 | Tobacco Yearbook                          |
| 17 | Agricultural Outlook                      |
| 21 | U.S. Agricultural Trade Update            |
| 22 | Livestock & Poultry Update                |

## Livestock, Dairy & Poultry Overview

*Fed cattle prices fell during October to the lowest monthly level since late 1991 and early 1992. Weekly slaughter rates for hogs rose seasonally in October, and hog prices dropped as a result. Although pork supplies are below a year ago, competing meat supplies are large, pressuring hog and pork prices down.*

*Broiler production will be at record levels in 1993, with continued increases expected in 1994. Producers are responding to strong domestic demand and record exports. Turkey producers have had their best year since 1986 after a long span of years when returns were at or slightly below breakeven.*

### Cattle & Beef Prices Falling

Rising beef production is helping to push down beef and cattle prices. Fed cattle prices during October were the lowest since late 1991 and early 1992. Seasonally large beef supplies and competition from other meats pushed wholesale prices lower during the month, which were quickly passed back to the live cattle market. Price weakness in both loin cuts and trimmings contributed to lower cattle prices.

- Fourth-quarter fed cattle marketings in the 13 quarterly reporting states are forecast 7 percent above a year earlier.
- Seasonally higher cow slaughter will add to total fourth-quarter beef supplies, which are forecast to rise nearly 5 percent above year-earlier levels.
- Fed cattle prices will remain under pressure for the remainder of the fourth quarter, trading between \$70 and \$74 per cwt.



## U.S. Livestock and Poultry Products—Market Outlook at a Glance

		Beginning stocks	Production	Imports	Total supply	Exports	Ending stocks	Consumption		Primary market price
								Total	Per capita	
		----- Million lbs. -----						----- Lbs. -----		\$/cwt
Beef	1993	360	23,166	2,410	25,936	1,300	425	24,211	65.5	76-77
	1994	425	23,993	2,370	26,788	1,400	350	25,038	67.2	71-77
Pork	1993	385	16,870	685	17,940	410	375	17,155	51.6	46-47
	1994	375	16,949	705	18,029	395	375	17,259	51.3	45-51
										¢/lb
Broilers	1993	33	22,009	0	22,042	1,820	33	20,189	68.7	54-55
	1994	33	23,127	0	23,159	1,905	33	21,221	71.5	50-56
Turkeys	1993	272	4,795	0	5,067	210	260	4,597	17.6	62-63
	1994	260	4,911	0	5,171	225	275	4,671	17.9	59-65
		----- Million doz. -----						----- No. -----		¢/doz.
Eggs*	1993	13.5	5,951.3	5.0	5,969.8	154.6	12.0	5,043.0	234.3	72-73
	1994	12.0	6,015.0	4.5	6,031.5	157.0	12.0	5,082.5	233.8	67-73

Based on November 9, 1993 World Agricultural Supply and Demand Estimates. 1993 estimates. 1994 projections.

\*Total consumption does not include eggs used for hatching.

See tables 10 and 11 for complete definition of terms.

- Large cattle-on-feed inventories are forecast well into the first half of 1994, limiting any strong upward price movements for beef or cattle.
- Retail beef prices in 1994 will likely average 10 cents a pound lower than in 1993.

### Broiler Production To Reach Record

Broiler production is expected to reach another record in 1994, as producers and processors continue to respond to strong domestic demand and record exports. Per capita consumption will also increase to a new high. Returns to processors are expected to remain positive in 1994, but be below 1993 due to lower wholesale prices and higher feed costs.

- Broiler production is forecast to increase 5 percent in 1994, about the same as this year. Per capita consumption will reach a record 72 pounds.

- Average wholesale prices for whole birds are expected to drop 1-2 cents a pound to 53-54 cents in 1994.
- Retail prices are forecast to average 86-87 cents a pound in 1994, about the same as in 1993 and 1992.
- U.S. broiler exports will likely continue their record-setting pace in 1994, reaching about 1.9 billion pounds.

### Turkey Output To Move Up

Turkey production is expected to grow slowly during 1994 following little change in 1993. After many years of returns at or slightly below breakeven, 1993 average net returns were positive. The improved returns resulted from higher turkey prices, due to slow production growth combined with lower feed costs during much of 1993. In addition, turkey exports continue to increase, and fourth-quarter supplies of competing pork are the lowest in a number of years. Beginning stocks of turkey for 1994 are

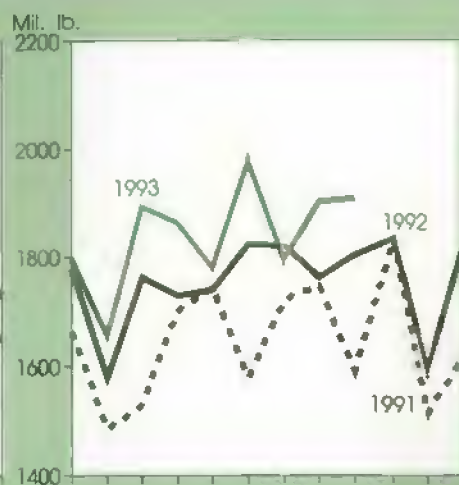
expected to remain below a year ago and, together with strong fourth-quarter prices, provide a reasonably bright outlook for producers next year.

- Turkey production in 1994 is projected to increase about 2 percent. Production in 1993 was up less than 1 percent.
- Fourth-quarter Eastern region wholesale hen prices are estimated at 69-72 cents, up from 65 cents last year and the highest fourth-quarter prices since 1988 and 1989.
- For 1993, average hen prices are estimated at 62-63 cents a pound, up from about 60 cents in 1992.
- Fourth-quarter returns are tempered by higher feed costs, including the first year-over-year increase since third-quarter 1992, but are still expected to average 5-7 cents per pound, the highest since 1986.

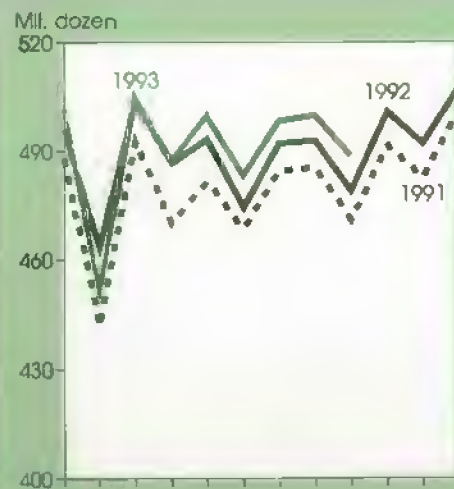
## Agricultural Economy

## Livestock &amp; Product Output

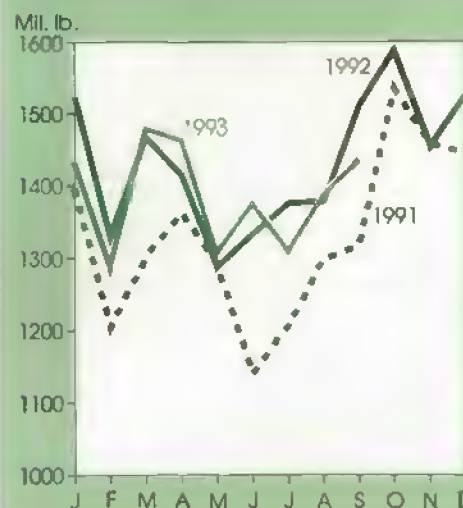
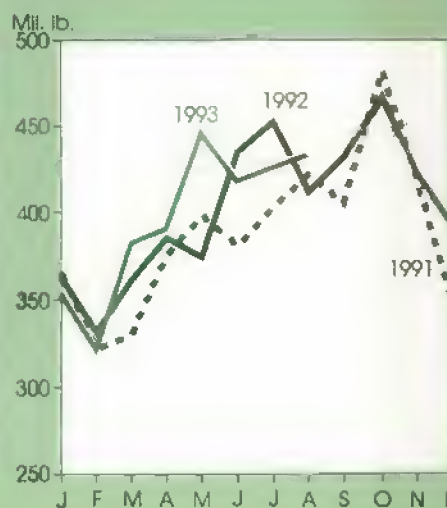
## Commercial beef

Broilers<sup>1</sup>

## Eggs



## Commercial pork

Turkeys<sup>1</sup>

## Milk



<sup>1</sup>Federal inspection production, ready-to-cook.

### Egg Supplies Expanding, Prices To Drop

Positive returns to egg producers during 1993 are leading to higher fourth-quarter production, with production also expected up in 1994. Strong demand will likely boost fourth-quarter retail prices above a year earlier. Producer prices are expected lower in 1994, and returns, while positive, will likely be below this year.

- Supplies of table eggs during the fourth quarter will be 2 percent above a year earlier and the highest

since 1987. Fourth-quarter table-egg production will surpass output of a year earlier.

- Table-egg production in 1994 is expected to exceed 1993's 5.1 billion dozen by 1 percent, pushing New York wholesale egg prices down to 70 cents per dozen, 3-4 cents below a year earlier.
- The table-egg production flock will be maintained close to 240 million hens through fourth-quarter 1993, before slight reductions occur in first-quarter 1994.

- In 1994, exports should rebound to the 1992 level of 157 million dozen, shell-egg equivalent, boosted by lower egg prices.
- Egg imports are forecast to increase about 16 percent in 1993 to an expected 5 million dozen, shell-egg equivalent, while in 1994 imports will drop to 4.5 million dozen due to lower U.S. egg prices.
- Stronger demand will keep fourth-quarter retail prices above last year, but below 1989 to 1991. Annual net returns for 1993 will be about 9



cents per dozen, while estimates for 1994 drop to 5 cents, due to lower prices and higher feed costs.

## Hog & Pork Prices Declining

Weekly slaughter rates for hogs have risen seasonally in the fourth quarter. However, pork supplies are below a year ago. Even with the decline in pork supplies, large supplies of competing meats are pressuring hog and pork prices below a year ago. Pork production and prices in 1994 are expected to be about the same as a year earlier.

- First-quarter 1994 slaughter rates are expected to be below a year earlier, but rates will pick up later in 1994 and meet or exceed 1993 slaughter rates.
- Due to a large year-over-year increase of hams in cold storage in advance of the holidays, wholesale ham prices moderated in October after strengthening in September. Monthly retail ham prices since February have averaged below a year earlier.
- Retail pork prices in September and October averaged over \$2 per pound, the highest monthly averages since November 1991. Prior to September, monthly average prices had been below the previous year since June 1991.
- After dropping to about \$1.20 per pound this summer, farm-retail price spreads began to rise this fall. Despite the increase, the 1993 farm-to-retail price spread will likely be the lowest since 1990.

## Dairy Shift to West Accelerates

The pace of the U.S. dairy industry's long-term shift to the West has accelerated. The indicator: number of cows in

the respective regions, with numbers dropping recently in parts of the Midwest and the South, and climbing in the Southern Plains, Mountain, and Pacific regions. These largely offsetting shifts have not significantly affected the slow decline in U.S. cow numbers. However, they have temporarily strained dairy product manufacturing capacity in some areas, left excess capacity in others, diminished the flexibility to shift milk among different products, and altered wholesale product flows.

Growth in western milk production is a longstanding trend. The Mountain and Pacific regions now produce more than a fourth of the country's milk supply, and both regions have doubled their shares since 1965. Western regions have become low-cost milk producing areas, with advantages of climate, forage supplies, size, and specialization.

- July-September cow numbers in Wisconsin and the Northern Plains dropped 6 percent from a year earlier. Longrun income pressure and 2 straight years of forage problems stimulated dairy farm exits. Producers in those areas were very reluctant to expand, even if they were in a financial position to do so.
- Large decreases in cow numbers were not typical in all parts of the Midwest. Other parts of the Midwest had less than 2 percent fewer cows than a year ago, a decline consistent with stable milk production.
- The Northeast had the same number of cows as a year earlier. The region went through a period of accelerated exit several years ago, but recovered more quickly than Wisconsin.
- Rapid entry of new operators in some of the Mountain states boosted cow numbers 6 percent. Growth in the Pacific region was less than 2 percent, reflecting the more advanced development of the dairy industry in that region.

- Changes in cow numbers in the South ranged from a 3-percent decline in the Appalachian region, to 1-percent decreases in the Southeast and Delta regions, to 3-percent growth in the Southern Plains.

**For further information, contact:** Richard Stillman and Agnes Perez, coordinators; Steve Reed, cattle; Leland Southard, hogs; Lee Christensen, Larry Witucki, and Milton Madison, poultry; Jim Miller and Sara Short, dairy. All are at (202) 219-1285. **AO**

## Specialty Crops Overview

*Grower and retail prices for potatoes, apples, and citrus fruit are expected higher than a year ago because of smaller 1993 crops. With larger fresh vegetable crops expected this fall, retail prices could come down for several fresh vegetables, but large export demand is keeping dealer prices up for dry beans. The 1993/94 flue-cured and burley tobacco crops are expected down from last year, but weak demand and poor quality have lowered grower prices for flue-cured, while burley prices are expected the same or lower.*

## Cold, Wet Weather Hits Fall Potatoes

The coldest growing season on record reduced potato yields and caused quality problems in Idaho, while excessive rains reduced harvested area and yields in North Dakota's Red River Valley. Grower and retail prices for 1993-crop potatoes are expected higher than a year earlier because of the smaller crop and strong demand for fresh and processed potatoes.

- USDA estimates 1993 potato production at 415 million cwt, down 2 percent from last year's record high.

## Agricultural Economy

The fall crop—almost 90 percent of production—is forecast down 2 percent from a year ago because of smaller output in Idaho, North Dakota, Maine, and Wisconsin.

- Production in Idaho, the top producer, fell 4 percent from 1992, and North Dakota's output dropped 28 percent. Production in Colorado and in Washington tallied 13 and 17 percent higher than in 1992, partially offsetting declines in other states.
- The season-average grower price will likely fall within the range of \$6-\$7 a cwt, compared with the \$5.52 average for 1992. USDA's first official estimate of the 1993 season-average price is published in January 1994.
- Retail prices for potatoes during calendar 1993 will average about 15 percent higher than in 1992 due to strong demand for fresh and frozen product. Prices are expected to inch up further in 1994 because of the smaller 1993 crop.

### Mexican Demand Raises Pinto Prices

The U.S. dry bean production forecast was lowered during September and October because early freeze damage nipped yields in the Plains states. The smaller-than-expected crop, along with strong export demand for pinto beans due to a poor crop in Mexico, has boosted dry bean prices above year-earlier levels.

- The U.S. dry bean production forecast was lowered to 22.4 million cwt during October, down 3 percent from the October 1 forecast. Harvested acreage declined 30,000 acres in Nebraska and Minnesota during October. Heavy losses are expected in the pinto and Great Northern bean crops.
- Despite the losses, production is forecast 2 percent above last year because of more acreage. The largest gain is expected in the Navy bean crop. Michigan dry bean production

is forecast 57 percent above 1992, due to more acreage and higher yields.

- Growers' average prices for all types of dry beans rose during September and October as the production outlook deteriorated. The biggest increases were in pinto and Great Northern prices. Dealer f.o.b. selling prices have risen 47 percent for pintos and 40 percent for Great Northerns since August. Prices for Navy beans were up about 7 percent.
- Export demand from Mexico for U.S. pinto beans is forecast up for fiscal 1994, due to a reported poor crop in Mexico. Pinto beans are a basic item in the Mexican diet.

### Fresh Vegetable Fall Acreage Up

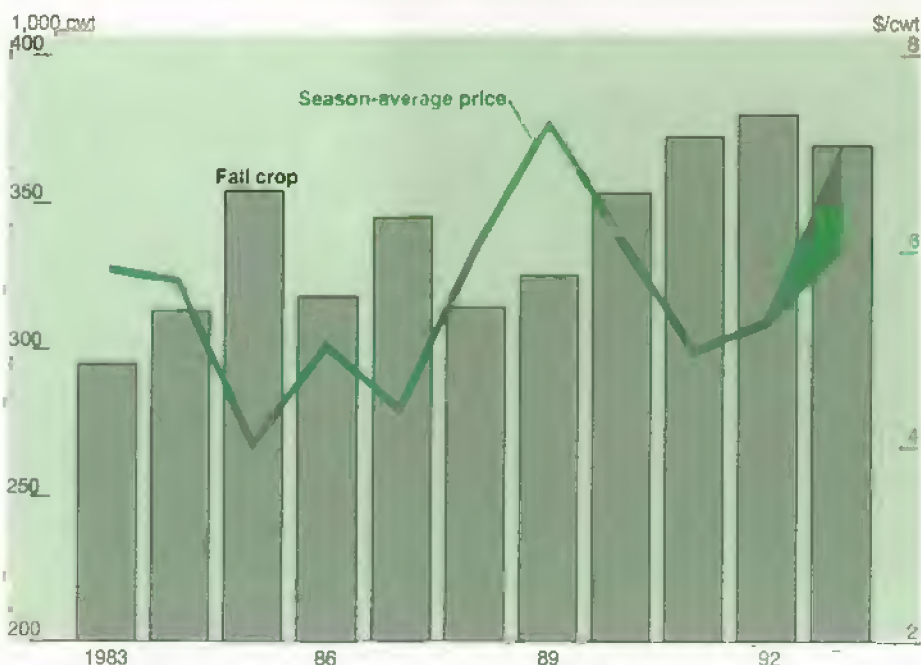
Given average growing conditions, higher acreage could translate into lower retail prices for some fresh vegetables this fall. Tomato prices are expected to remain below a year earlier, when reduced production boosted prices.

- Acreage for harvest of 13 major fresh-market vegetables during the fall quarter is estimated 4 percent higher than a year ago. Sweet corn and tomato acreage are each reported up 20 percent or more. Cucumber acreage fell 61 percent, however, because of wet weather in Florida and dry conditions in Virginia.
- Tomato prices this fall are expected to average at least 20 percent below last fall's elevated prices. Florida is expected to be the largest U.S. fresh-market tomato shipper during the fall, with Mexican tomatoes entering the market toward the end of the season.

### Smaller Crop Boosts Apple Prices . . .

A smaller 1993 apple crop and expected stronger export demand has boosted grower and retail prices for fresh apples from a year earlier. Hot, dry summer weather in eastern states and hailstorm damage in western New York lowered yields below earlier expectations.

Grower Prices Rise with Smaller Fall Potato Crop





Production in western states is expected only marginally higher than in 1992. Washington, the largest U.S. producer, grows mostly for the fresh market, while over half the Michigan and New York crops are for processing.

- Apple production in the western states is expected to total 6.2 million tons in 1993, up marginally from 1992, with Washington up about the same. The central states are projected 2 percent lower than last year, with Michigan 7 percent lower. Eastern states are estimated 7 percent lower, and New York is down by nearly 19 percent.
- U.S. grower prices for fresh apples averaged 22.4 cents a pound in October, up 6 percent from October 1992. Retail prices for Red Delicious apples have averaged about 8 cents a pound higher than a year earlier during October. Prices for smaller apples were generally lower than a year before, reflecting an abundant supply, while prices for larger sizes were up.
- Exports to Europe are expected to be higher than in the 1992/93 marketing year, because Europe reports a smaller crop for 1993 compared with its record-large harvest last season.

### ... & Fresh Citrus Prices

Smaller California navel orange and Florida citrus crops are expected to boost retail prices for fresh oranges and grapefruit in 1993/94. Orange juice prices fell in October when 1993/94 Florida orange crop forecasts came in larger than expected, but prices remain above a year earlier.

- Total U.S. citrus production for 1993/94 is forecast down 7 percent from last year's near-record output. Orange production is down 7 percent and grapefruit down 9 percent.

- California's all-orange crop, sold mostly for fresh use, is expected 6 percent smaller than last year, and the navel crop is down 13 percent.
- Florida's production, which is mostly for orange juice, is expected down 8 percent from 1992/93. Smaller Florida and Brazilian crop prospects pushed frozen concentrate orange juice futures prices somewhat higher throughout the spring and summer after a 16-year low early this year.
- Grower prices for grapefruit are expected up from last year when Florida harvested an unusually large crop and Japan—a major export market—bought less U.S. grapefruit than usual.

### Demand Weak For U.S. Tobacco

Despite a smaller crop, weak demand and poor quality have lowered grower prices for flue-cured tobacco this year. Grower prices for burley tobacco during the 1993/94 marketing season, which begins November 22, 1993, are expected the same or lower than a year ago. U.S. leaf tobacco exports during the 1993/94 season (July-June) are projected to decline because of smaller U.S. supplies and larger supplies of low-priced foreign tobacco.

- U.S. tobacco production during the 1993/94 crop year is forecast down 7 percent from 1992/93, due to less acreage and lower yields. Flue-cured tobacco production is down 4 percent, and burley by 11 percent.
- Prices for 1993/94 flue-cured tobacco averaged about 4 cents a pound below last season. Reduced crop quality, large world supplies, and a likely decline in domestic cigarette production are keeping prices low. In addition, recent U.S. domestic content legislation may spur some countries to reduce purchases of U.S.-grown leaf.
- Health concerns, smoking bans and restrictions, declining acceptability of smoking, and higher cigarette prices are expected to reduce cigarette consumption by about 1.5 percent in calendar 1993, continuing the long-term decline.

[Glenn Zepp (202) 219-0882]

**For further information, contact:** Dennis Shields, and Diane Bertelsen, fruit and tree nuts; Gary Lucier, vegetables; Peter Buzzanell, sweeteners; Doyle Johnson, greenhouse/nursery; Verner Grise, tobacco (202) 219-0882. David Harvey, aquaculture; Lewrene Glaser, industrial crops (202) 219-0085. **AO**



### NASS/ERS Data Users' Meetings

Kansas City, Missouri • January 5, 1994  
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An opportunity for users of USDA economic statistics—

- to learn about survey procedures and analysis, and data applications
- to comment on data programs and offer suggestions.

This year's focus: *Economic indicators*  
(including farm income, costs of production,  
and farm prices)

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## Commodity Spotlight



### Dairy Shifts To West & Southwest

Over the past four decades, especially in the last 20 years, milk production has shifted from the frostbelt and grainbelt to the West and Southwest. And along with this regional shift in milk production has come a movement to larger, more specialized dairy operations.

In 1965, the Northeast, Lake States, Corn Belt, and Northern Plains together accounted for over 71 percent of U.S. milk production. By 1992, these four regions made up under 60 percent. In contrast, the Mountain and Pacific regions together accounted for 26 percent of U.S. milk production in 1992, double their combined share in 1965.

The pace of the dairy industry's shift to the West and Southwest has recently accelerated. The number of cows has decreased in parts of the Midwest and the South, and risen in the Southern Plains, Mountain, and Pacific regions at a faster rate than previously. The recent acceleration in declining cow numbers in the Upper Midwest has been due primarily to forage problems resulting from the heavy rain and flood of 1993.

### Climate, Yield, & Size Are Factors

Several factors account for the regional shift in cow numbers and milk production. First, milk costs less to produce in the West and Southwest primarily because of the warmer climate, which requires far less overhead in buildings than one with severe winters. In some areas of the Southwest, the only shelter needed is sun shades to give cows protection in hot weather.

In addition, warmer and drier weather, a longer growing season, and availability of irrigation in the Southwest result in better quality, higher yielding hay and forage. High yields of good-quality alfalfa are possible in irrigated areas. Better quality hay and forage make high milk yields per cow easier to obtain.

Much of the land in the West is irrigated, allowing farmers to cut off water prior to making hay, while unpredictable rainfall in the Northeast and Midwest reduces hay quality. Also, mastitis and other diseases occur less frequently in parts of the West and Southwest because rainfall and humidity are lower in those areas.

Second, economies of size play an important role in the changing location of dairy farmers. The large newer dairy farms, those with over 500 cows, are typically located in the West and Southwest. And large drylot operations of 1,000 or more cows are located mostly in Arizona, New Mexico, California, Texas, and Florida.

In contrast, smaller herd sizes are prominent in the Upper Midwest and Northeast. The 250-cow dairy is generally considered large in the northern traditional dairy states.

The larger operations exhibit lower per-unit cost because of economies associated with greater specialization of labor and more intensive use of facilities. Because of their size, the large drylot dairies of the Southwest can hire trained labor, operate 24 hours a day, specialize in the business of milking cows, and milk cows three times a day instead of the traditional two.

Most large, specialized dairy operations purchase rather than grow their feed, especially grains and concentrates that can be economically transported long distances. Well-developed markets for hay allow dairy farmers to concentrate on producing milk, not forage. Specialized production provides more flexibility and timeliness in adjusting milk production to match consumer needs.

In contrast, smaller farms tend to produce their own feed, use family labor for a variety of tasks, raise their own herd replacements, and milk for only a few hours a day. This type of operation spreads producers' resources among different types of farming operations, leaves milking equipment and facilities idle for

### FDA approves bST

On November 5, 1993, the Food and Drug Administration (FDA) announced approval of the new animal drug Sometribove, a recombinant bovine somatotropin (bST) product for increasing milk production in dairy cows. FDA's announcement marks the conclusion of an exhaustive scientific review of bST which began in the early 1980's. Sometribove is manufactured by Monsanto and will be marketed under the name Posilac.

However, the sale of bST will be delayed for 90 days following FDA's November 5 approval, due to a provision in the budget bill passed by Congress in August 1993.

The Administration, at the request of Senators Russell Feingold (D-WI), Patrick Leahy (D-VT), and Herbert Kohl (D-WI), and Representatives David Obey (D-WI) and Bernard Sanders (I-VT), is conducting a study of the social and economic impact of bST. The study is to be completed 45 days after the November 5 approval. [Richard Fallert (202) 219-0712]



## Commodity Spotlight

a large part of a 24-hour day, and keeps feed production equipment idle for a big part of the season.

The third factor in the regional shift is that average milk yields per cow are higher in the West and Southwest than in the traditional milk producing areas. In 1992, the five leading states in annual milk production per cow were New Mexico, Washington, California, Arizona, and Colorado, ranging from 19,568 pounds of milk per cow for New Mexico to 17,700 for Colorado. Wisconsin and Minnesota were slightly below the U.S. average of 15,423, while Pennsylvania and New York were slightly above.

Fourth, an economic growth philosophy is important to dairy expansion. Bankers, chambers of commerce, state economic development agencies, and other dairy industry support systems are actively recruiting firms to build dairy processing plants in the West and Southwest. At the same time, they are encouraging experienced milk producers with a good financial track record to locate in these areas. Arizona, eastern New Mexico, the Central Valley of California, and certain parts of Texas are examples.

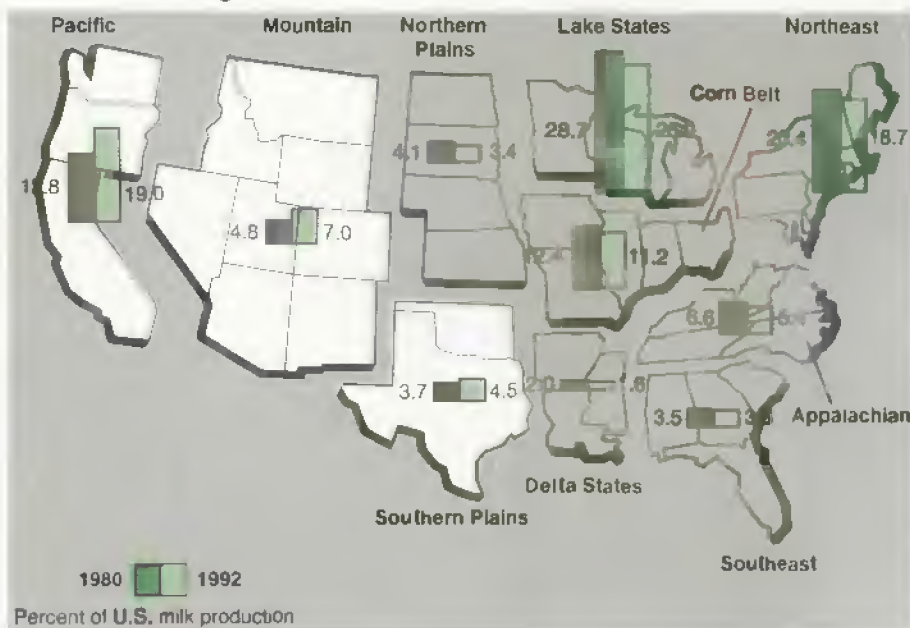
Finally, the long-term population movement from frostbelt states to western sunbelt states has contributed to the westward shift in milk production. Since fluid milk is expensive to ship and is highly perishable, locating dairy farms and fluid milk facilities in regions with large population reduces transportation costs.

However, since a higher proportion of milk is used to produce storable manufactured dairy products like butter, nonfat dry milk, and cheese which can be transported long distances at relatively low cost, the location of dairy manufacturing facilities near population centers has become less important.

### Midwest Share Is Still Largest

While the Midwest (Lake States, Corn Belt, and Northern Plains) accounted for over half of U.S. milk production in 1965, the region's share was barely 40

Dairy Production Share Expanding In Pacific, Mountain, and Southern Plains Regions



percent in 1992. The biggest decline occurred in the Corn Belt, whose share dropped from 17.1 to 11.2 percent. The Corn Belt experienced its largest drop in national share from 1965 to 1975.

Expanded feed grain acreage in response to higher grain prices and a comparative advantage in grain production accounted for some of the regional decline from 1965 to 1975. Over the longer term, lower milk yields and higher milk production costs compared with operations in the West and Southwest have reduced this region's competitiveness.

The Northeast, the third-largest producing region, went through a period of accelerated dairy farm exit during 1988-90. The Northeast accounts for nearly 19 percent of U.S. milk production, down from almost 21 percent in 1965. The region's share has partially recovered from this dairy exit since 1990.

The South currently accounts for about 10 percent of U.S. milk production, down from 13 percent in 1975. However, within the region the decline has varied. While Appalachia's share dropped from nearly 7 percent in 1965 and 1975 to 5.4 percent in 1992, the Southeast's share actually rose from 3 percent in 1965 to 3.8 in 1975 before

dropping to 3.3 in 1992. Strong growth in cow numbers in Florida accounts for most of the Southeast's growth.

### Pacific & Mountain Shares See Biggest Rise

In contrast to the decline in national share of milk production experienced by the traditional dairy producing areas, the shares accounted for by the Pacific and Mountain regions have risen. Climate, length of growing season, milk yields per cow, economies of size, and population explain most of the shift in regional milk production to these areas.

The Pacific region has exhibited the strongest sustained growth of any region, more than doubling its share of U.S. milk production from 1965 to 1992. The region is now second largest in milk production in the U.S., accounting for 19 percent in 1992, up from just 9 percent in 1965. In August 1993, California was the largest milk producing state—calculating monthly—just passing Wisconsin.

Likewise, the Mountain states have nearly doubled their share of U.S. milk production since 1965, from 3.7 percent to over 7 percent in 1992. Large-scale specialized operations, a warm, dry

## Commodity Spotlight

### Dairy Price Alignment: How It Works

Principal uses of raw milk include production of fluid milk, butter, cheese, nonfat dry milk, and frozen desserts. Prices allocate raw milk supplies among these competing uses and give production and marketing signals to dairy farmers, processors, and marketing firms.

How market prices coordinate these economic activities depends in part on the inherent characteristics of raw milk. These include: extreme perishability, bulkiness, high potential for transmitting diseases, weak price responsiveness, continuous production, unsynchronized timing of production and consumption, and biological lags in output.

In areas producing both manufactured dairy products and fluid milk, milk and dairy product prices are fully aligned when the farm value of milk is the same regardless of how the raw milk is finally used.

#### *Butter, Nonfat Dry Milk, & Cheese Are Key*

Butter, nonfat dry milk, and cheese play a major role in adjusting dairy markets. Several factors explain this.

First, unlike milk, these products can be stored for many months at only a small cost and with little or no loss of quality. Monthly storage costs, including interest expenses, for these three products are only about 1 percent of the product's value. Thus, stocks of cheese, butter, and nonfat dry milk can absorb much of the expected and unexpected variation in dairy production and use, thereby adding substantial price stability to dairy prices.

Second, these products are relatively inexpensive to ship compared with milk and most other dairy products. These products can be shipped across the entire U.S. for what it would cost to ship the quantity of milk used to produce them about 150 miles. If local market prices for these products (and therefore local milk prices) become too high or too low compared with other uses, shipments between regions can quickly correct the distortion.

Finally, these three manufactured products represent major uses of milk. Cheese or joint production of butter and nonfat dry milk can release or absorb enough milk to compensate for variability in other dairy product markets. Butter also handles variability in markets for separated cream, while nonfat dry milk serves the same function for skim milk markets.

### *Government Purchases Support Milk Prices*

The dominance of the three key dairy markets makes it possible for the government to support the price of all dairy products and raw milk with a purchase mechanism focused on these products. USDA's Commodity Credit Corporation (CCC) offers to buy as much butter, nonfat dry milk, and cheddar cheese as producers want to sell at announced prices.

Since wholesale product prices on average will not fall below the support purchase prices, a price floor exists for all dairy markets. The CCC support purchase prices are calculated so that a plant selling cheese (or butter and nonfat dry milk) at the support purchase price can pay milk producers the support price for milk set under current legislation.

Although the support price applies specifically to manufacturing-grade milk, all milk prices are actually supported by the purchase mechanism. The requirements of the legislation are considered met if the U.S. annual average manufacturing-grade milk price is equal to, or greater than, the support price. The CCC will sell dairy products back to the domestic industry, if the CCC holds stocks not yet designated for a particular use. Thus, these sell-back prices may function as a price ceiling in the same way purchase prices serve as price floors.

In addition, Federal milk marketing orders specify minimum prices processors must pay to dairy farmers or cooperatives for Grade A (fluid grade) milk in markets where producers have approved the establishment of a Federal milk marketing order. However, in most Federal order markets, prices paid by milk handlers exceed Federal order minimums. Marketing orders make price relationships between some uses of milk rigid and probably increase average milk prices slightly.

Since 1991, the Dairy Export Incentive Program (DEIP) has emerged as a significant support activity. The DEIP subsidizes exporters who buy dairy products from the domestic market and ship them to eligible countries. The effects of the DEIP on domestic milk markets vary with market conditions. When a heavy surplus exists, DEIP exports merely replace sales that would go to the CCC. However, if DEIP removals are from fairly tight markets, as frequently occurred between mid-1991 and mid-1993, price increases are generated that benefit the dairy industry.

Import quotas also contribute to the overall support of milk producers. Import quotas limit domestic supplies and generally keep domestic prices slightly higher than they would be otherwise.

*[Jim Miller (202) 219-0770]*



## Commodity Spotlight

## World Agriculture &amp; Trade

climate, and higher milk yields have been primary factors in the shift.

The Southern Plains states have increased their share of U.S. milk production to 4.5 percent in 1992, up from 3.5 percent in 1965. Large herd operations in Texas have accounted for most of this regional growth.

Limited shortrun capacity of the Southwest's milk processing plants—especially in New Mexico, Texas, and California—has actually restrained the region's expansion in milk production. Although more butter and nonfat dry milk are produced in California than consumed within the state, much of the cheese consumed in California is still from Wisconsin. California and the Southwest have been increasing their cheese manufacturing capacity, which will provide an expanded market for the area's increasing milk production.

The shift in location of milk production is expected to continue, as climate, per-unit costs, forage quality and availability, economic development strategies, and—to a lesser extent—population favor dairy operations in the South and Southwest.

However, while many of these location-related advantages, such as climate and land quality, are essentially fixed and are difficult or impossible to change, other factors affecting location and structure of the dairy industry are possible to change over time. This is especially true of such factors as enterprise specialization, management practices, and economic development strategies.

[Richard Fallert (202) 219-0712] AO



Inter-American Development Bank

## Mexico To Curtail Farmers' Price Subsidies

Mexico's new agricultural program is designed to tilt the country's farm sector in a more market-oriented direction and, along with NAFTA, to continue its trade liberalization. This major new program—PROCAMPO—announced by President Salinas on October 4, 1993, is also designed to provide needed income support to subsistence farmers and is consistent with the draft Uruguay Round agreement.

PROCAMPO will replace Mexico's current farm support system, which fixes prices for some commodities well above international levels. The new system involves a direct income subsidy payment program based on the historical number of planted acres of corn, beans, wheat, rice, cotton, soybeans, safflower, barley, and sorghum. With farmers receiving direct income support rather than price support, production decisions will not be distorted by artificially high commodity prices currently supported by the government. Farmers should make production

choices based on market signals rather than government-set prices.

PROCAMPO will be phased in gradually in 1993/94 and be fully operational by 1995. Payment levels to producers will be fixed in real terms for 10 years and then phased out over the following 5 years. Mexico estimates that in the near term, the financial subsidy to agriculture will increase from \$2.1 billion currently to \$3.5 billion next year, but ultimately the budgetary expenses and government intervention in the agricultural sector will be diminished.

An analysis by USDA's Economic Research Service indicates that Mexico's PROCAMPO reform plan will lead to lower producer and consumer prices for all crops participating in the program. Corn is the most important agricultural commodity in Mexico, and the guaranteed corn price is probably the single most important policy instrument in determining trends in Mexico's farm sector. Lower domestic producer prices will result in reductions in both irrigated and rain-fed area planted to corn, with changes varying by type of producer (subsistence or commercial). Changes in relative prices will in turn lead to a decrease in area planted to corn, and will lower production levels, raise consumption, and increase reliance on corn imports.

### New Plan Is Market-Driven

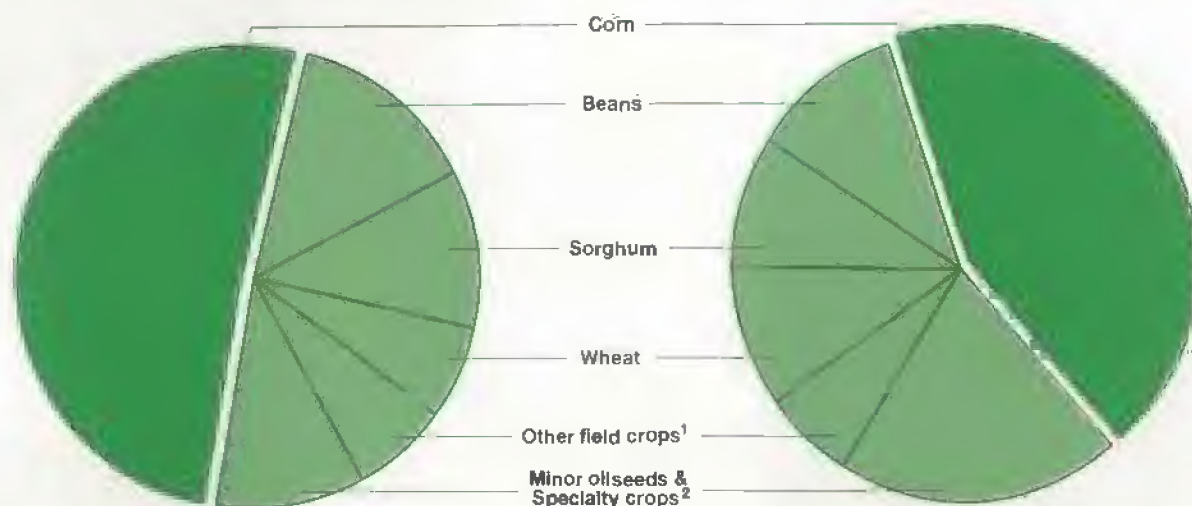
The Mexican government has been implementing unilateral trade liberalization since joining the General Agreement on Tariffs and Trade (GATT) in 1986. PROCAMPO is a continuation of these reform efforts.

Since payments to farmers under PROCAMPO will be fixed in real terms and based on the amount of land a producer historically devoted to produce eligible commodities (the 3 years prior to December 1992), the plan eliminates government-induced incentives for farmers to plant crops in tropical rain forests or to expand production on marginal lands susceptible to erosion. Additionally, since payments are based on historical

## World Agriculture & Trade

Corn Accounts for Over Half of Mexico's Cropland . . .

. . . And Over 40 Percent of Crop Value



Total crop area, 1992  
13.9 million hectares

Total crop value, 1992  
\$7.17 billion

<sup>1</sup>Includes soybeans, barley, cotton, safflower, and rice. <sup>2</sup>Includes sugar, vegetables, and fruit.

rather than current yields, the program provides no new incentives to use excess amounts of fertilizers or pesticides, and growers could use payments to finance reforestation and other soil conservation programs.

Subsistence farmers, who consume most of their crop output on-farm, generally have not benefited from Mexico's guaranteed-price-support system. PROCAMPO more effectively targets the direct income payments to those perceived to need them most.

PROCAMPO takes a big step toward the NAFTA goal of domestic support measures that have minimal or no trade-distorting effects. Under the current proposal for implementation, Mexico's new support measures appear to be exempt from any applicable domestic support reduction commitments that may be negotiated under the GATT.

### Corn Production To Decline

Corn is Mexico's major crop, and accounts for close to half its total cropland. Corn is the principal crop of over 2.4 million farmers (46 percent of all agricultural producers). It is grown in all 33 Mexican states on farms ranging from small subsistence plots in the southeast to large commercial farms in the central and northwest regions. About two-thirds of the corn area is farmed under the ejido system of land tenure (collective farming). Almost 90 percent of corn producers in this system cultivate subsistence farms—containing 5 or less hectares.

Over 85 percent of harvested corn area is rain-fed, but irrigated corn accounts for almost a quarter of all irrigated harvested cropland. About 61 percent of the corn production from irrigated land is produced by large, commercial farmers. Subsistence farmers grow over 65 percent of the corn harvested from rain-fed land.

Corn area and production showed little change in trend during the latter half of the 1980's. However, a sharp increase in the relative price of corn starting in 1989 encouraged a rise in both irrigated and rain-fed area planted to corn. Production on rain-fed land increased over 20 percent between 1989 and 1991, to 9.9 million metric tons, and was up nearly 60 percent on irrigated land, to 4.3 million metric tons, as a result of the increased area and 3 years of good weather.

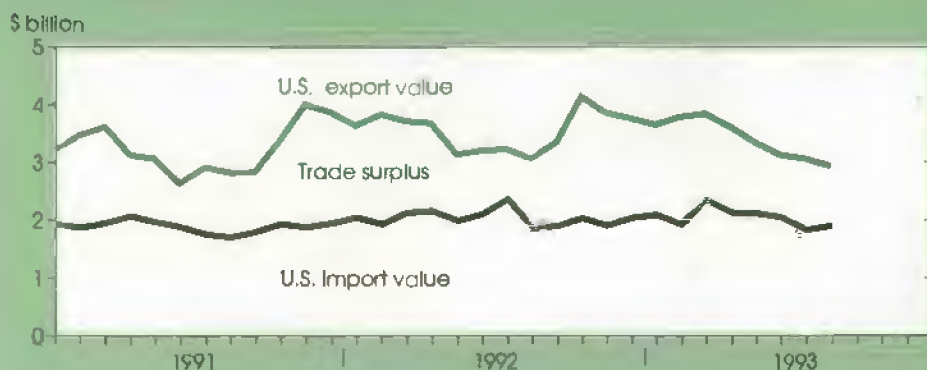
About 34 percent of corn output is typically consumed on-farm. Ejidatario farms of 5 hectares or less consume about 60 percent of their output and market the rest. Commercial farmers, on the other hand, market most of their output. Their cropping pattern should change fairly rapidly in response to PROCAMPO price and subsidy reforms, while the crop mix of subsistence farms is likely to remain more or less unchanged.



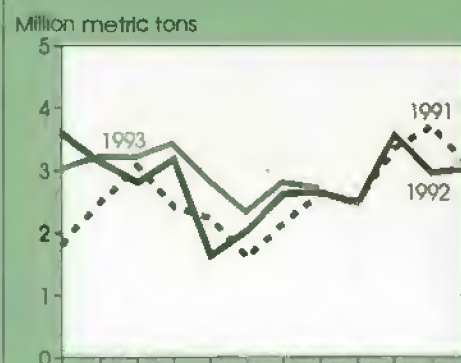
## U.S. Trade Indicators

## World Agriculture & Trade

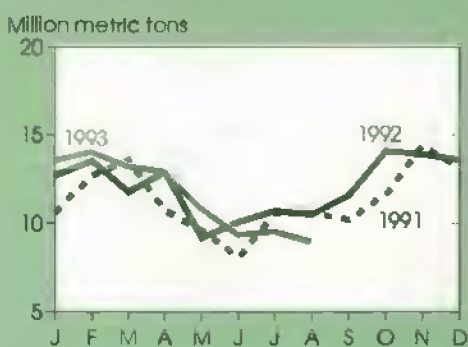
### U.S. agricultural trade balance



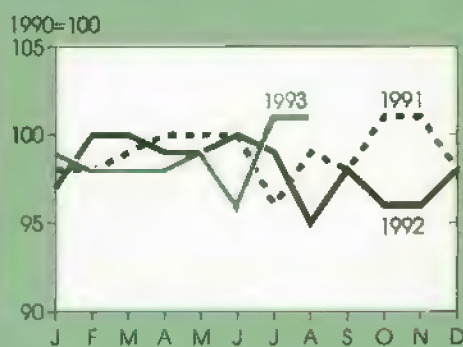
### U.S. wheat exports



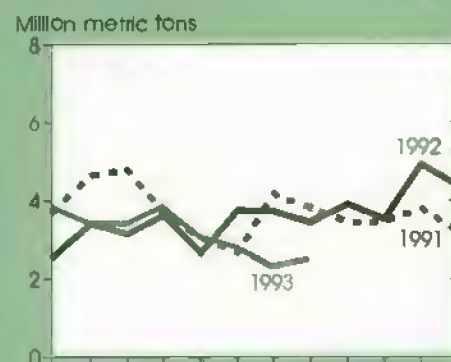
### Export volume



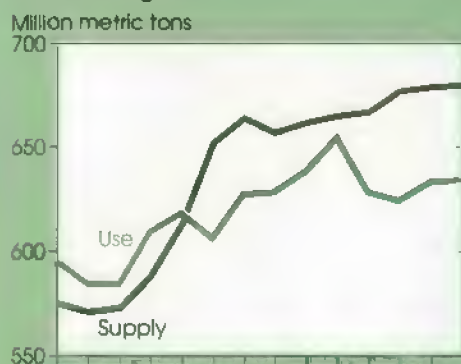
### Index of export prices



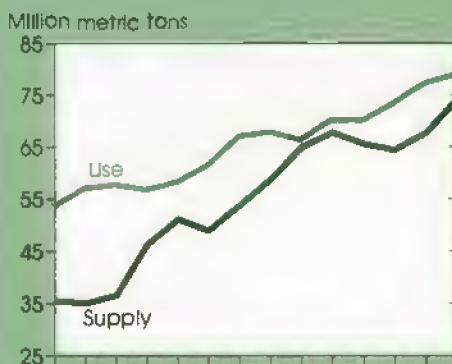
### U.S. corn exports



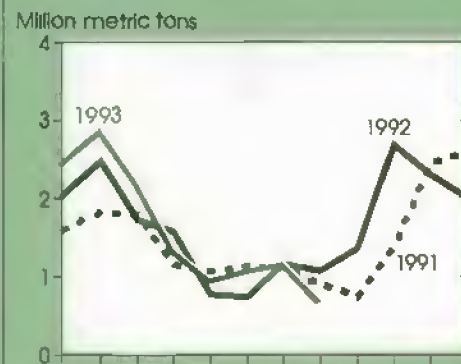
### Foreign supply & use of coarse grains



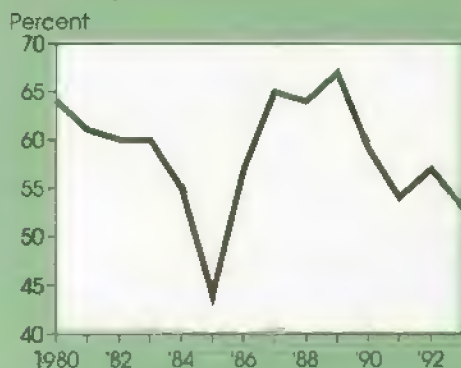
### Foreign supply & use of soybeans



### U.S. soybean exports



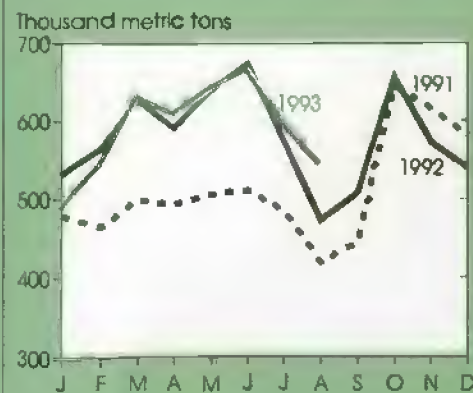
### U.S. share of world coarse grains exports<sup>1,2</sup>



### U.S. share of world soybean exports<sup>1,2</sup>



### U.S. fruit, nut & vegetable exports<sup>3</sup>



<sup>1</sup>Excluding intra-EC trade. <sup>2</sup>October-September years. <sup>3</sup>Includes fruit juices.

## World Agriculture & Trade

ERS's analysis of the PROCAMPO plan indicates that commodity price declines will be steeper for the guaranteed corn price than for other commodity prices over PROCAMPO's 15-year phase-in period. This would lead to decreases in both irrigated and rain-fed area planted to corn. Subsistence producers would reduce area planted, but since PROCAMPO's direct income support payments are targeted to subsistence producers, commercial producers' planted area would decline more rapidly.

The total estimated reduction in planted corn area, about 700,000 hectares, translates into 215,000 corn producers switching to production of other commodities during the plan's first 3 years. Corn area harvested is estimated to be reduced by over 1.4 million hectares by the end of the 15-year transition period.

The number of corn producers that will switch to other agricultural activities depends on the specific assumptions about increases in labor productivity and growth in average farm size over time. Virtually all the commercial farmers moving out of corn production—located mainly in the irrigated areas in Tamaulipas, Chihuahua, Sonora, Sinaloa, and the Bajío—will likely move into wheat, soybean, sorghum, cotton, horticultural, sugarcane, and other crops, based on relative expected returns.

As fewer producers grow corn and certain other commodities under the PROCAMPO plan, Mexican imports of these commodities should rise. [Constanza Valdes, John Link, and Kim Hjort (202) 219-0693] **AO**

## Trade Within Asia Is Expanding

While many developing countries were experiencing external debt problems and falling commodity prices in the 1980's, Asia was leading the world in economic activity. Low labor costs, substantial investment, government support, and a high savings rate all contributed to Asia's strong economic growth in the 1980's. Much of that growth was driven by rising domestic demand and greater trade within the region.

Since 1980, the value of developing Asian countries' total trade has almost quadrupled, and their share of world trade doubled from 8 to 16 percent. Similarly, overall U.S. trade with the region quadrupled.

While Asia's total trade with the world expanded in the 1980's, the destination and source of the continent's merchandise exports and imports have shifted away from countries outside Asia toward those within Asia. Inter-Asian trade (excluding Japan) overtook trade with North America in 1992—accounting for 37 percent of Asia's exports and 35 percent of its imports that year. Until only a few years ago, the U.S. was Asia's largest export market, and Japan its primary source of imports.

Since 1986, inter-Asian trade, excluding Japan, has averaged 25 percent annual growth, faster than in any other part of the world. By 1992, inter-Asian trade accounted for 36 percent of the region's total trade with the world, in contrast to 25 percent in 1986. Both imports and exports with the EC, Asia's third-largest trading partner, have declined compared with Asian trade since 1986.

Increased exports from the NIE's (newly industrialized economies of Hong Kong, Korea, Singapore, and Taiwan) and from China accounted for much of the expansion of inter-Asian trade in the 1980's.

By 1992, these countries accounted for 78 percent of the value of Asia's intra-regional exports.

### *Inter-Asian Trade Benefits the U.S.*

On balance, greater inter-Asian trade benefits the U.S. to the extent that gains from trade translate into greater purchasing power and demand for high-value products. While the total value of U.S. merchandise exports to Asia did almost triple from 1981 to 1992, U.S. agricultural exports to Asia showed little growth, and a small decline is expected for 1993.

Several factors account for the weak growth in U.S. farm exports to Asia. First, as incomes grow, demand for manufactured products typically expands while the share of income spent on food declines. Second, many Asian countries protect their domestic markets from imports. Any significant expansion of U.S. farm sales to Asia might have to wait for a successful Uruguay Round of the GATT.

Export industries, the fastest growing sector in many of Asia's economies, not only are important to the region's overall economic growth, but they also expand opportunities for U.S. exports since they enhance buying capabilities of Asian countries. In 1992, the U.S. exported more to the NIE's than to Japan. Asia offers U.S. exporters the best alternative to declining markets elsewhere, such as in Europe.

Asia's rapid economic growth in the 1980's is the most important factor in the expansion of Asia's intra-regional trade, and trade in turn has reinforced continued growth. Per capita incomes in Asia rose faster than in any other part of world during the 1980's, and the region's high level of savings—over 30 percent of gross domestic product (GDP) in the high-performance countries—allowed incomes to grow in many countries without igniting inflation.

The high rates of economic growth attracted direct foreign investment, particularly to export-oriented industries. Japan



## World Agriculture &amp; Trade

and the NIE's directed investment capital toward Asian countries with low relative labor costs and strong income growth. And due to strong economic growth, demand by Asian countries for imports of high-value products such as capital goods, durables, and high-technology items increased.

### U.S. & Japan Decline As Asia's Markets

Nearly three-fourths of Asia's trade was conducted outside the region in the first half of the 1980's. But a number of factors converged to channel the increasing trade in an inter-Asian direction.

First, starting in 1986, as the U.S. dollar declined steeply in value against the currencies of the NIE's, the relative competitiveness of the NIE's in their largest single export market—the U.S.—deteriorated. Thus, as the U.S. dollar's depreciation against currencies of East Asia (Hong Kong, Taiwan, South Korea, and China) made Asian products more expensive in U.S. markets, Asia's exports shifted toward the expanding market close to home.

Between 1986 and 1992, the share of Asia's exports sold to the U.S. dropped from 30 to 22 percent, and the U.S. share of exports from Asia's NIE's dropped from 40 to 26 percent. The diversion of Asia's exports away from the U.S. towards itself consequently boosted intra-regional exports to 37 percent of Asia's total, displacing Canada and the U.S. as the largest regional market for Asian exports.

Second, about the same time that Asian trade expansion took off, the yen appreciated in value relative to other Asian currencies, giving their countries a competitive edge over Japanese exports. This resulted in a decline in Asia's import share originating from Japan. The NIE's now import much more from Asian countries other than Japan, a reversal from 1985's distribution.

The share of Japan's imports from Asia also declined. Despite the yen's appreciation against other Asian currencies after the mid-1980's, the share of Asia's exports shipped to Japan steadily declined from 15 percent in 1986 to 12 percent in 1992. Even the most successful group to

penetrate the Japanese market—the NIE's—watched their share shrink from 10 to 9 percent.

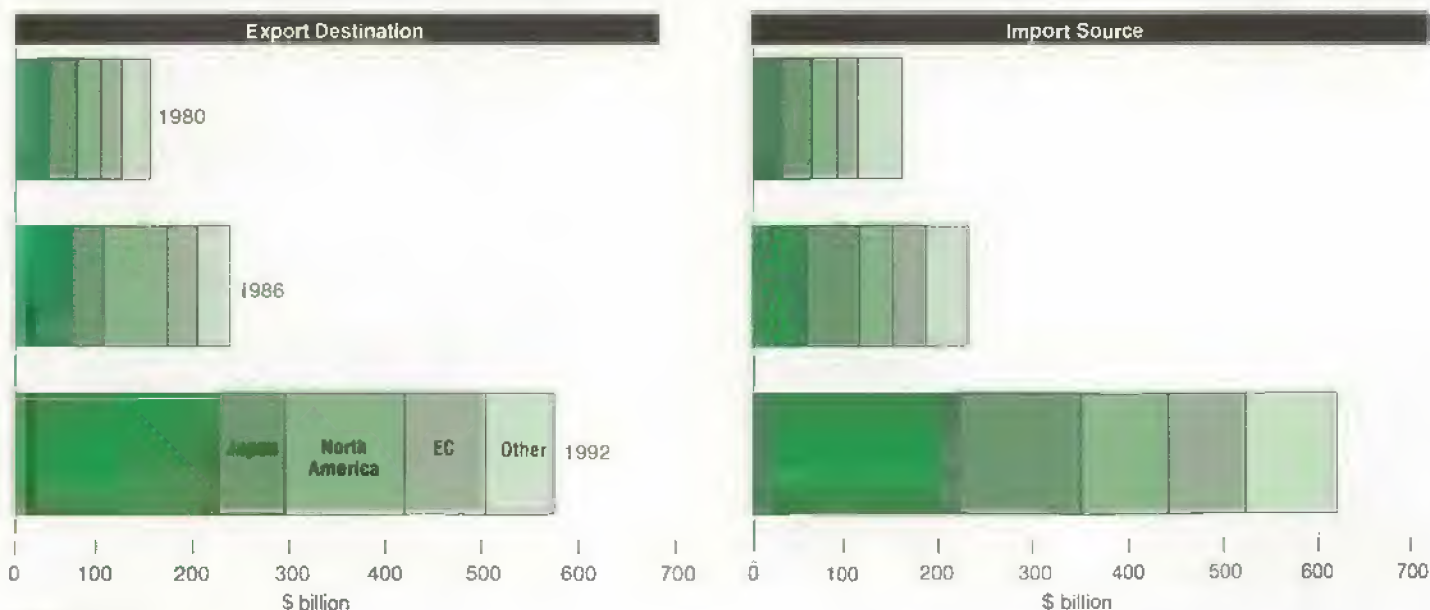
The decline in the share of Asia's exports to Japan was the result of increased penetration of U.S. products into the Japanese market following the dollar's depreciation against the NIEs' currencies after 1986. Without the U.S. and Japanese markets to count on for their expanding export capacity, Asian exporters turned to their own markets for trade growth.

Finally, as world commodity prices drifted down after 1988, Asian commodity exporters found ready markets next door, where production activity remained robust in contrast with economic slow-down in the rest of the world.

### Export-Investment Pattern in Asia

As Asia's rapid economic growth in the past decade contributed significantly to the expansion in inter-Asian trade, the region has also attracted investment funds in search of higher returns than found in the slowly growing developed countries or in Latin America where

Asia Has Become Its Own Largest Trading Partner



## World Agriculture & Trade

### NIE's Overtake Japan

In 1992, the combined exports of the NIE's (newly industrialized economies of Hong Kong, Korea, Singapore, and Taiwan) exceeded those of Japan for the first time. The group's share of world exports is about 9.5 percent, triple 1972's share. The top two exporters—the U.S. and Germany at 12.3 and 11.6 percent—are not far ahead.

A growing portion of the NIEs' export earnings is being invested in Southeast Asia and China. Of the total investment inflows to Indonesia, Malaysia, Philippines, and Thailand of \$60 billion in 1985-91, 33 percent originated in the NIE's, compared with 21 percent from Japan.

Foreign direct investment in China (\$11 billion in 1992) has also been led by the NIE's, predominantly Hong Kong and Taiwan. Hong Kong invested an average of more than \$2 billion a year between 1979 and 1990, accounting for 62 percent of total inflows. The estimated value of Taiwan's investment on the mainland ranges between \$5 and \$10 billion, about 5 percent of the total. Japan's share during the period was 7.7 percent.

Because of its massive total trade surplus, projected at \$148 billion for 1993, Japan is expected to increase investments in Asia beyond 1992's \$6.4 billion. Further, the yen's sharp appreciation will mean more imports from Asia, particularly high-volume, low-value-added products. While the NIE's will benefit from Japan's greater demand for imports, the yen's strength also raises the NIEs' cost for imports of essential capital goods from Japan. For this reason, their trade deficit with Japan (\$46.5 billion in 1992) is not expected to disappear any time soon.

incomes have been declining. To a large extent, intra-regional investment flows in Asia mirror intra-regional trade flows. The sources of intra-regional investments are generally the higher income Asian countries, which are also among the most aggressive exporters.

Southeast Asia (Thailand, Malaysia, Indonesia, the Philippines, and Singapore) in particular has attracted financial inflows (official and private) estimated between \$50 and \$60 billion since 1985. In the late 1980's, Japanese investment poured into Southeast Asia, attracted by low wages and strong consumption growth. The next wave of investments into Southeast Asia came from the NIEs', which accounted for a third of Southeast Asia's capital inflows from 1985 to 1991, easily surpassing Japan's 21 percent.

Exports from Japan and the NIE's to Southeast Asia are increasingly accompanied by investments. The composition of their exports to Southeast Asia has been

shifting from consumer goods to capital goods and to products with higher value and greater technology content.

The bulk of inter-Asian exports is manufactured goods, reflecting the relatively advanced stage of Asian economic development. As capital accumulates and labor productivity rises in Southeast Asia and China, this export-investment pattern will likely be repeated in other areas of Asia, with perhaps South Asia (India, Bangladesh, Pakistan, and Sri Lanka) being the next big export market and investment opportunity. The lure of their huge, low-cost labor force as well as a massive consumer market, given optimistic per capita income growth, provide incentives for both exports and investment.

### South Asia To Be Next Big Market

With continued expansion and diversification of trade in China and Southeast Asia, inter-Asian trade is bound to multi-

ply. As production costs in China and Southeast Asia eventually rise, South Asia will look more inviting. Furthermore, as barriers to direct investment are dismantled in South Asia, and economic growth continues to accelerate, a pattern similar to that experienced by Southeast Asia could occur: a transformation of the region into an export base, not just an export market.

Presently, a sizable portion of South Asia's exports consists of primary products (mainly shipped to Japan and the NIE's), similar to the composition of Southeast Asia's earlier exports.

Inter-Asian trade should also benefit from the redistribution of Japan's massive trade surplus away from investments in the developed countries (predominantly the U.S.) and towards investments in Asia. While Japanese imports from the U.S. may rise, lower growth prospects in the U.S. and Europe relative to Asia do not offer inducements for greater investment.

The direction of trade and foreign investment in Asia will increasingly be linked as the richer Asian countries recycle their export earnings, excess savings, and technology into their less developed Asian partners. Referred to as the "virtuous circle," the feedback linking income growth, trade gains, and investment flows underlies Asia's sustained economic expansion, despite sluggish growth elsewhere in the world.

### Trade Liberalization Key to Growth

Although trade liberalization in Asian countries appears to follow the pace of economic development, average tariff rates outside Japan, Hong Kong, and Singapore remain relatively restrictive. In addition, nontariff barriers to trade are common in Japan, Korea, and Taiwan. South Asian countries are the most protective of their domestic industries among Asian countries, an indicator of their lower level of economic development.



## World Agriculture &amp; Trade

## Rural Development

Greater inter-Asian trade hinges on the removal or reduction of tariffs and other trade impediments. Lower trade barriers, as called for in GATT, will provide incentives for more investment in export industries.

Intra-regional trade is binding Asia closer together, a natural progression toward economic integration and a precursor to any future free trade bloc. Free trade within the European Community or between the U.S. and Canada was a logical step because as economies mature, strong economic growth is difficult to sustain since domestic markets do not expand fast enough to accommodate more efficient production. Securing foreign markets through free trade, typically in neighboring countries, promotes economic growth and security.

With the long-term goal of a free trade bloc, the Association of Asian Nations (ASEAN)—Brunei, Indonesia, Malaysia, the Philippines, Singapore, and Thailand—is exploring closer economic integration with the East Asian countries (the NIE's and China). However, greater Japanese imports from Asia would be a big factor in the region's economic integration.

The world economy is expected to recover over the next few years—especially if a new GATT accord is reached—which will boost total Asian exports at a faster pace than during the last few years. In the longer term, as long as foreign capital continues to flow into Asia, and China maintains strong economic growth, prospects for greater inter-Asian trade are promising. And with greater inter-Asian trade and resulting economic growth, prospects for U.S. exports to the region are likewise enhanced.

[Alberto Jerardo (202) 219-0782] AO



USDA photo by Robert Nichols

## Profiling Black Farmers In the U.S.

Will the decade of the 1990's mark the end of the long-term exodus of African Americans from farming? After the dramatic displacement of blacks from farming during previous decades, the population base of African American farmers has become too small for losses of the magnitude of earlier decades. Both the number and proportion of black farmers have declined steadily since 1920, when the number of black farm operators peaked at 926,000, and one out of every seven U.S. farmers was black.

Although the total number of U.S. farms also dropped, black-operated farms declined at a faster rate. By 1987, only 23,000 black-operated farms remained—and only 1 in every 100 farmers was black. Black farmers ran only 1 percent of U.S. farms, operated less than 1 percent of the farmland, and generated less than 1 percent of farm product sales reported in 1987, according to the most recently available Census of Agriculture data.

Nevertheless, further declines are likely. If black farmers follow national trends indicated by recent estimates, their already small numbers will continue to drop. Based on the overall rate of farm loss in the U.S. during the 1990's—about 1.1 percent annually—ERS estimates that at least 1,300 black-operated farms have exited since 1987.

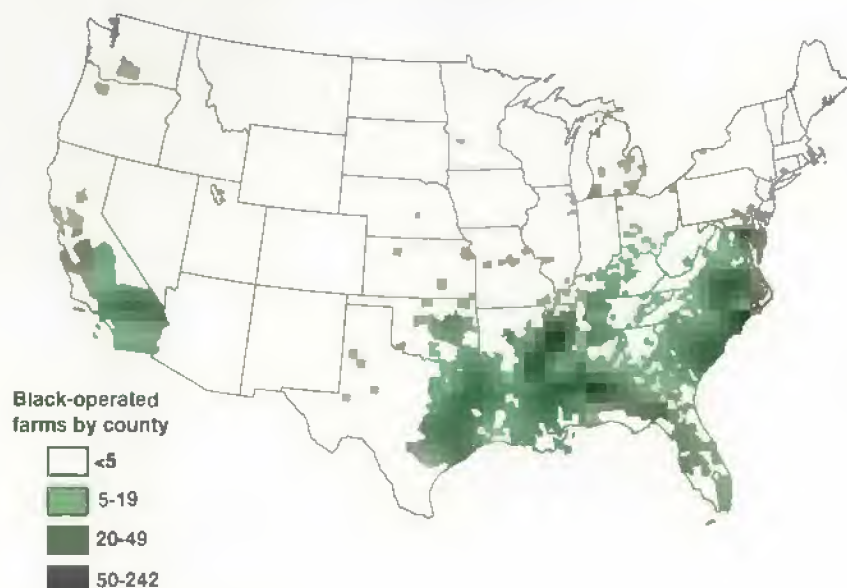
### Behind the Decline

Declining farm numbers, increasing farm size, and rising productivity—fueled by technological developments enabling fewer people to produce more—have characterized U.S. farm structure since early in this century. A host of factors have been cited to explain the rapid exodus of African Americans as agriculture became more concentrated:

- the legacy of slavery, failure to redistribute land to African Americans after the Civil War, and continuance of white dominance and African American political, economic, and social suppression;
- the tenure status of African American farm operators—most were tenants who worked as sharecroppers when the number of black farm operators peaked in the 1920's;
- the mechanization of cotton production, where black farming was concentrated, and the shifting of cotton production to the West;
- vulnerability of small-scale farms, the type most frequently operated by African Americans, to overall changes that have taken place in agriculture;
- availability of higher paying non-farm jobs, primarily in northern cities after World War II, that attracted young African Americans who had been raised on farms;
- loss of black-owned farmland because of lack of knowledge about tax and credit policies, inheritance-transfer mechanisms, eminent domain, and legal instruments for maintaining or acquiring land;

## Rural Development

### Farms Operated by African Americans Are Concentrated In the South



Source: 1987 Census of Agriculture.

- institutional changes that accompanied desegregation efforts during the 1960's, including abolishing farm clubs for black youth and the lowered status of vocational agriculture programs; and
- some failure of agricultural policies and programs to reach African American farmers, whether due to ineffectiveness, discrimination in implementation, poor design, lack of funding, or other unintended shortcomings.

African Americans remaining in farming are older than farmers in general, and young blacks are not entering farming in substantial enough numbers to offset the decline as older blacks exit. This portends continued decline in the number in black operators, as older blacks leave farming.

### African American Farmers in Profile

Even after decades of severe and continuing declines in their numbers, African American farmers remain the largest racial minority group among U.S. farmers. But while they comprised slightly more than half of minority farmers in 1987, they accounted for only about 5 percent of all minority-operated farmland and 15 percent of sales.

**Geographic concentration.** Farms operated by African Americans have historically been concentrated in the South and comprised a sizable proportion of southern farms earlier in the century. The majority of their farms and farm acreage remains in the South—just eight Southern states contained 73 percent of all black-operated farms and 70 percent of their acreage in 1987. Texas and Mississippi led in the number of farms and the acreage operated by African Americans.

Nine states accounted for three-fourths of the total value of agricultural products sold from black-operated farms. North Carolina led with about 16 percent of their total sales. The volume of sales in

North Carolina is due in part to the concentration of flue-cured tobacco farms. About one-third of all African American-operated farms in the state specialized in tobacco production in 1987.

California and Florida, while not among the leaders in number of black-operated farms, nevertheless ranked fifth and sixth in agricultural sales from these farms in 1987. While most of California's 309 black-operated farms were small—73 percent had fewer than 50 acres and 72 percent had sales of less than \$10,000—a small number had very high product sales. These high-value enterprises pushed average sales of the state's black-operated farms up to \$75,900—higher than the national average of \$65,200 for all farms and \$14,500 for all black-operated farms.

Only 38 percent of black-operated farms in California produced crops, but about 85 percent of sales from their farms came from crop production. The most common crop production specialty on these farms was fruit and tree nuts.

Most of Florida's 708 black-operated farms were also small—62 percent had fewer than 50 acres and 78 percent had less than \$10,000 in product sales. Florida's black-operated farms averaged \$29,300 in farm product sales, more than double the average for black-operated farms nationally. Slightly over half the sales were of livestock, poultry, and their products, and the rest was earned from crops. Common crop production specialties included vegetables and melons (9 percent of their farms), fruit and tree nuts (7 percent), sugarcane and sugarbeets, Irish potatoes, and field crops other than cash grains.

**Type of farm.** Historically, cotton and tobacco production were the mainstays of African Americans in farming, accounting for probably three-quarters or more of their production early in the century. But by 1987 more than half of all black farmers specialized in livestock production, followed by cash grain farms (14 percent) and tobacco (11 percent), and with few specializing in cotton. Livestock farms were also the most common farm type in the U.S. in 1987, followed by cash grain, dairy, and tobacco.



## Rural Development

**Size of operation.** Black-operated farms averaged just \$14,500 in farm sales in 1987, compared with \$65,200 for all U.S. farms. Almost half had less than \$2,500 in farm product sales. Black-operated farms were also small in acreage, averaging only 115 acres—about one-fourth the national average of 462 acres. Nearly half had fewer than 50 acres.

Half of the loss of 10,296 black-operated farms between 1982 and 1987 was in the size classes with less than \$2,500 in farm product sales and fewer than 50 acres. The number of very small farms also declined among all U.S. farms, but both the rate and the proportion of loss were more pronounced for black-operated farms. This concentration of farm loss suggests that limitations of small-scale operations remain a factor behind the declining numbers of African American farms.

**Government payments.** Black farmers received \$16.5 million in direct government payments in 1987—about 0.2 percent of total direct government payments for that year. African American farmers receiving such payments collected \$4,000 on average, while the average for all farmers receiving direct government payments was about \$13,800. Direct government payments to farmers are based on the volume of eligible commodities produced.

The largest portion of direct government payments are deficiency payments on the major program crops—feed grains (mostly corn), wheat, rice, and cotton. A deficiency payment is made to a voluntarily participating farmer when the federally set target price for an eligible commodity is higher than the market price and the loan rate. The payment amount is based on the difference between the target price and the market price or Commodity Credit Corporation (CCC) loan rate, whichever difference is less. The majority of these payments goes to producers of corn and wheat, typically grown in the Corn Belt and Plains—areas that have few black farmers.

**Commodity Credit Corporation loans.** Black farmers received \$8.5 million from CCC loans in 1987—about 0.1 percent of

the national total. For farms receiving CCC loans, the average amount was \$7,900 for black farmers and \$27,700 for all farmers.

Farms participating in Federal farm programs may receive CCC loans, which enable farmers to hold their crops for sale at some later date, hopefully when the market price is more favorable. The loans are designated "nonrecourse," which means that if the farmer wishes, the government must take the crop in lieu of repayment of the loan.

The number of U.S. farms receiving CCC loans increased by almost 60 percent between 1982 and 1987, while the number of black-operated farms receiving CCC loans fell by 14 percent. The total value of CCC loans received by all farmers also went up, but not as rapidly as the number of farms receiving loans. The net effect of these changes was to

lower the average amount per receiving farm (from \$35,000 in 1982). For black farmers, the total amount of CCC loans received and the average per receiving farm both declined. The average was \$11,200 for black-operated farms receiving CCC loans in 1982.

**Land ownership and tenure.** One of the most important changes taking place in African American farming has been in their tenure status. As mentioned earlier, the predominance of tenancy was one of the driving forces behind the decline of African Americans in farming. In 1920, when the number of black farmers was at its highest, probably three-fourths were tenants, owning no land, equipment, or animals and depending on the landowner to provide everything from housing to seeds. Many functioned basically as farm laborers. This left them extremely vulnerable to developments in agriculture that reduced labor requirements.

## African American Farms Have Declined Faster Than U.S. Farms Overall...

	Black-operated farms	Black-operated	U.S. total
	1,000	Percent change <sup>1</sup>	
1900	746.7	—	—
1910	893.4	1.8	1.0
1920	925.7	0%	0.1
1930	882.9	-0.5	-0.2
1940	681.8	-2.6	-0.3
1950	560.0	-1.9	-1.2
1959	272.5	-7.7	-4.1
1969	87.4	-10.8	-3.0
1978	37.4	-8.0	-2.1
1987	23.0	-5.3	-0.9

<sup>1</sup> Average annual rate of change since previous census.

## ...And Account for About 1 Percent of All U.S. Farms

	Black-operated farms as a share		
	Total	Minority	Southern
	Percent		
1900	13.0	97.0	27.9
1910	14.0	96.6	28.4
1920	14.3	97.0	28.6
1930	14.0	96.8	27.0
1940	11.2	94.2	22.4
1950	10.4	95.6	20.8
1959	7.3	93.7	16.2
1969	3.2	84.2	7.3
1978	1.7	64.4	3.9
1987	1.1	51.4	2.6

Source: Census of Agriculture.

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Black farmers are now much more likely to own all or part of the farmland they operate than in earlier decades. In 1987, about 65 percent of black farmers were full owners of the land they farmed, compared with about 59 percent of all farmers. However, black-owned holdings are likely to be comparatively small, according to data from the 1988 Agricultural Economics and Land Ownership Survey (AELOS), a followup to the 1987 Census of Agriculture. Blacks owned and operated less than 1 percent of all the owner-operated land in the survey. The average parcel owned and operated at any time in 1988 by black operators was 65 acres, compared with 279 acres for all owner-operators.

AELOS data show that the bulk of acreage owned and operated by African Americans, as well as all operators, was purchased. Black-owned and operated land purchased from nonrelatives accounted for about 45 percent of the total, and purchases from relatives 38 percent. Acquisition by inheritance or gift amounted to only 12 percent, and land from other sources, 6 percent. Comparable sources of ownership for owner-operators in general were 58 percent purchased from nonrelatives, 22 percent bought from relatives, 16 percent coming from inheritance or gifts, and 4 percent from other sources.

*Off-farm work.* Farmers with small-scale operations such as those typically

run by African Americans usually rely on income from off-farm sources to help meet operating and household expenses. Many operators have part-time jobs to supplement farm income, while others are employed primarily in nonfarm jobs and farm only on a very small-scale, part-time basis. For some, survival in farming has become dependent on availability of off-farm jobs and having job skills that are marketable beyond the farm gate.

In the 1987 census, 56 percent of black operators reported that they spent more than 50 percent of their work time in occupations other than farming or ranching, and 33 percent reported working off-farm 200 days or more. Farmers in general were more likely than black farmers to be primarily employed in farming, but similar proportions of both groups reported at least some days of work off their farms, and 200 or more days of off-farm work.

*Age.* An increasingly important factor affecting the future of black farmers is their advancing average age. In pre-World War II days, black farmers were somewhat younger on average than white farmers. Since then, much of the reduction in their numbers has occurred through the lack of entry of young African Americans into farming.

The average age of black farm operators in 1987 was about 58, compared with an average of 52 for all farmers. Black farmers 65 years and older outnumbered those under age 35 by almost 6 to 1, but this ratio was less than 2 to 1 for all farmers. The ratio of old to young black operators has increased since 1982, when it was 5 to 1.

### Outlook Linked to Small-Farm Viability

The large financial requirements of modern farming operations may limit the number of African American farmers and farm entrants, as well as those from all racial groups, in the future. Because of the small scale of their operations, many African American farmers may be unable to survive the competition of larger farms

#### Over 80 Percent of Black-Operated Farms Are Less Than 140 Acres

	All farms	Black-operated farms
	Percent	
Acreage:		
1-49	28.5	48.7
50-139	23.4	31.6
140-499	30.4	16.5
500 or more	17.7	3.2
Sales:		
Less than \$2,500	23.5	46.4
\$2,500-\$24,999	41.4	44.8
\$25,000 or more	35.1	8.8
Type:		
Cash grain	22.0	13.7
Cotton	1.3	2.7
Tobacco	4.2	10.7
Other field crops	6.1	5.3
Fruits, vegetables, nuts, & horticulture	7.1	4.9
Livestock, dairy, poultry, & eggs	55.4	58.8
General farms, crop & livestock	3.9	3.9
Tenure of operators:		
Full owners	59.3	65.2
Part owners	29.2	24.8
Tenants	11.5	10.0
CCC farm programs:		
Recipients	14.4	4.6 (0.1% of amount received)
Direct government payments:		
Recipients	33.5	17.9 (0.2% of payments)

Source: 1987 Census of Agriculture.



## Rural Development

that can take advantage of economies of scale. Some losses may also occur among economically viable farms, as older operators retire.

Federal and state programs to provide assistance to small-scale farmers, as well as programs to provide technical and financial assistance specifically to African American and other minority farmers, could help some stay in farming. Expanded human resource and rural development programs could increase the off-farm earning potential for those who stay in farming, as well as the options and opportunities for those who leave. *[Judy Kalbacher and Doug Rhoades (202) 219-0527] AO*

### December Releases from USDA's Agricultural Statistics Board

The following reports are issued at 3 p.m. Eastern time on the dates shown.

#### December

- 1 Broiler Hatchery
- 3 Dairy Products  
Egg Products  
Poultry Slaughter
- 6 Crop Progress (after  
4 p.m.)
- 8 Broiler Hatchery
- 9 Cotton Ginnings  
Crop Production
- 13 Potato Stocks
- 14 Turkey Hatchery
- 15 Broiler Hatchery  
Milk Production
- 17 Cattle on Feed
- 20 Catfish Processing
- 21 Cold Storage
- 22 Broiler Hatchery  
Cotton Ginnings  
Eggs, Chickens & Turkeys  
Livestock Slaughter
- 28 Peanut Stocks & Processing
- 29 Broiler Hatchery  
Hogs & Pigs

## Food & Marketing



## Food Prices To Rise In 1994

Cold, wet weather in early 1993 provided a counterweight to a sluggish economy, resulting in a 2-percent rise in the Consumer Price Index (CPI) for food this year and expectations of at least that level of increase in 1994. The 1993 increase, following 1992's 25-year record low of 1.2 percent, is still mild compared with the rise of almost 6 percent in the CPI for food in 1990, and is less than the 3-percent gain in the CPI for all goods and services this year.

Among the major factors in low price rises has been slow growth in the general economy following the 1991 recession. Disposable personal income has been rising at a rate of less than 1 percent this year, and consumer demand, including demand for food, has been sluggish.

Even though consumer demand for food is inelastic—food purchases decline proportionately less than income—consumers have been altering the mix of foods purchased. The trend—begun during the recession—toward fewer consumer purchases of ready-to-serve foods and restaurant meals and larger purchases of basic

food ingredients, has continued into 1993. Because of reduced demand for restaurant meals, the CPI for away-from-home food in 1993 will likely show the smallest price increase since 1964, rising less than the CPI for food in grocery stores.

### Cold, Wet Weather Pushed Up 1993 Prices

Cold, wet weather throughout the first half of 1993 caused higher prices for fresh vegetables and meats. These food categories carry a strong enough weight in the food CPI to account for most of its 2-percent rise in 1993.

Crops were damaged or harvest was disrupted in western and eastern growing areas during January through March, and field preparation for spring crops was disrupted, reducing supplies of a number of fresh vegetables in 1993. Fresh vegetable prices, particularly for lettuce and tomatoes, were sharply higher than a year earlier, peaking in May.

By June, large supplies of fresh vegetables began entering the markets from the late-planted California and east coast spring harvests and the widespread summer vegetable harvests. Prices began to decline but have remained above 1992 levels, and the fresh vegetable CPI for 1993 will average about 7.5 percent higher.

The cold weather also retarded weight gains in cattle and hogs. The number of hogs and cattle going to slaughter was slowed, and few cattle made choice grade. The CPI for beef and veal climbed until May, when warm, dry weather brought better conditions in feedlots and cattle began finishing at a faster rate. While retail prices began to decline, they remained well above levels of a year earlier. For all of 1993, beef prices will average about 4 percent above last year, and pork prices will be up about 2.5 percent.

Eggs registered the largest gain among all food categories in the CPI for 1993, up 8.5 percent, but eggs carry a weight of less than 2 percent in the CPI food-at-home category. While table-egg produc-

## Food &amp; Marketing

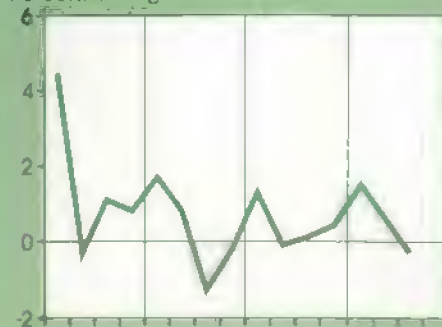
## Food &amp; Marketing Indicators

CPI: Total food<sup>0</sup>

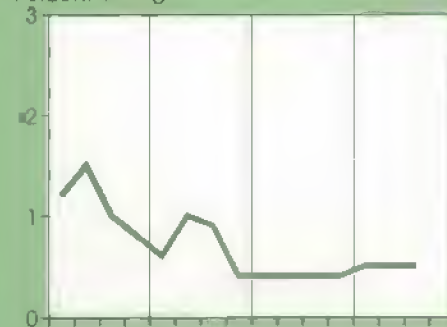
Percent change

CPI: Food at home<sup>0</sup>

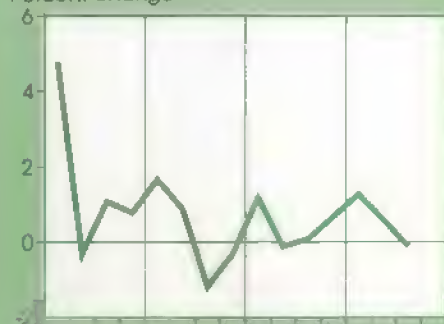
Percent change

CPI: Food away from home<sup>0</sup>

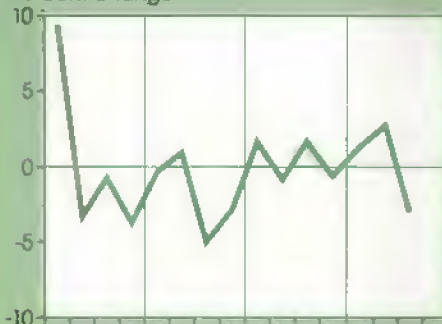
Percent change

Retail cost of food<sup>1</sup>

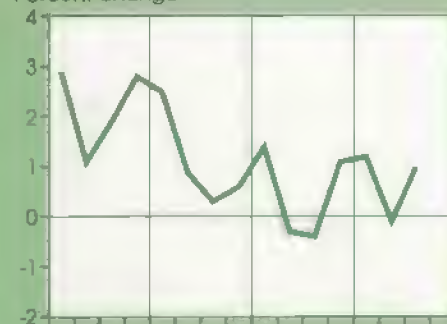
Percent change

Farm value of food<sup>1</sup>

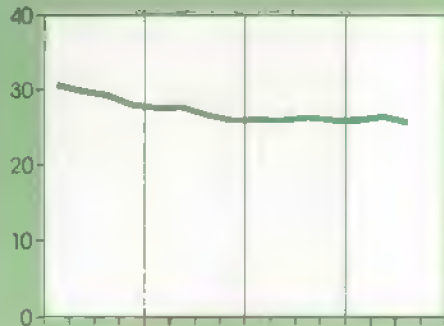
Percent change

Farm-retail spread<sup>1</sup>

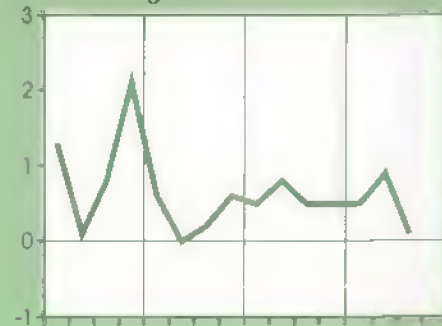
Percent change

Farm share of retail cost<sup>1</sup>

Percent

Food marketing cost index<sup>2</sup>

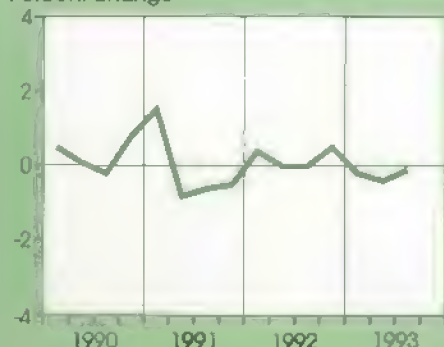
Percent change

Index of hourly earnings<sup>3,4</sup>

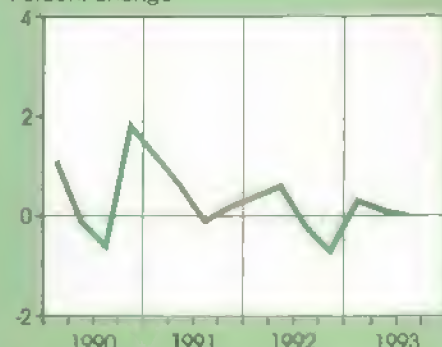
Percent change

Index of packaging prices<sup>4</sup>

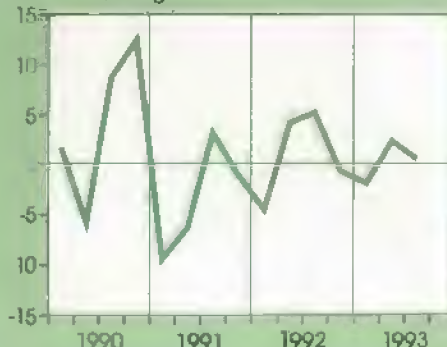
Percent change

Index of rail freight rates<sup>4</sup>

Percent change

Index of energy rates<sup>4</sup>

Percent change

<sup>0</sup>CPI unadjusted. <sup>1</sup>Index based on market basket of farm foods. <sup>2</sup>Index of changes in labor, packaging, transportation, energy, and other marketing cost.<sup>3</sup>In food retailing, wholesaling, and processing. <sup>4</sup>Component of food marketing cost index.

All series expressed as percentage change from preceding quarter, except for "Farm share of retail cost" chart.



tion in 1993 was larger than in 1992, production was not large enough to accommodate larger exports or to increase per capita availability. Per capita consumption is expected to be 233 eggs in 1994, down from 234 in 1993.

Cold, wet conditions in the first half of 1993 caused delays in planting corn, soybeans, and other crops in the Midwest and prevented some planting. Severe flooding during the summer damaged or destroyed crops planted in that region. However, the impact on 1993 food prices was minimal, although some price effects may be seen in 1994, especially for some processed vegetables.

### Moderate Price Rises Seen for 1994

The CPI for food is expected to rise moderately in 1994, to between 2 and 4 percent above 1993. The general economy will likely expand somewhat faster than in 1993, but employment will rise only slightly—signaling little improvement in consumer confidence and little upward

price pressure from consumer demand. Costs of processing and distributing foods will rise modestly, but may not be completely passed on to consumers because of the relative weakness in consumer demand. However, farm-level prices will have an impact on some major food categories because of the tighter outlook for supplies in 1994.

The food-at-home component is expected to rise only 1-3 percent in 1994. The CPI for fresh and processed fruits is expected to increase 3-5 percent from the 1993 level. The CPI for all red meats, however, is expected to decline in 1994.

Beef production is expected to rise 3-4 percent in 1994, resulting in a decrease of 2-4 percent in the CPI for beef and veal. In contrast, pork production will remain very near 1993 levels, and the pork CPI will increase 2-4 percent. Red meat supplies overall will be larger, and lower beef prices will more than offset higher pork prices.

Broiler production will continue to grow near the 5-percent rate in 1994, and re-

turns to broiler producers are expected to remain favorable despite the outlook for slightly higher feed prices. Turkey production, however, has been lower this year and is not expected to grow significantly in 1994, as producers wait for higher prices and improved returns. Increased supplies of broilers and lower expected prices of competing red meats will likely result in a slight decline in the CPI for poultry in 1994.

Smaller crops of apples, oranges, and other fruits will likely lead to higher retail prices for fresh fruit in 1994. The 1993 fall apple harvest was down about 2 percent from last season—mostly in the eastern states—signaling higher prices for processed apple products. The Washington State apple crop was very near last season's crop, and quality has been good. Lower total production coupled with good quality will mean higher retail prices for fresh apples in 1994.

Overall orange production is also expected down from last year—by 7 percent. The California navel crop is down an estimated 13 percent, and the Florida orange crop is 8 percent below last year's record-large crop. Smaller supplies this year in Florida will mean higher retail prices for orange juice.

Some vegetable crops for processing, especially green beans, peas, and sweet corn, were damaged by cold, rainy weather and flooding in the Midwest in 1993, and lower production of these crops will likely increase their prices in 1994. However, a large tomato pack in California will dampen increases in the CPI for all processed vegetables.

The away-from-home component of the food CPI is expected to rise 2-4 percent in 1994. While consumer demand will remain lackluster for most of the food industry, some recovery in the away-from-home market will likely lead to increased menu prices. Operating costs have been inching up slowly this year, but prices have remained relatively stable, eroding marketing margins. Any increase in demand will likely mean some higher prices in restaurants. But competition will continue to keep price increases moderate among fast-food firms. [Ralph Parlen (202) 219-0870] AO

Fresh and Processed Fruit Prices to Climb in 1994

Consumer Price Index	1991	1992	1993	Forecast 1994
<i>Percent change</i>				
All food	2.9	1.2	2.0	2 to 4
Food away from home	3.4	2.0	1.8	2 to 4
Food at home	2.6	0.7	2.2	1 to 3
Meat, poultry, and fish	2.3	-0.8	2.8	0 to -1
Meats	3.1	-1.4	2.7	0 to -2
Beef and veal	2.8	-0.1	3.2	-2 to -4
Pork	3.3	-4.7	3.0	2 to 4
Other meats	3.7	0.2	1.2	0 to -2
Poultry	-0.8	-0.1	3.1	0 to -2
Fish and seafood	1.1	2.3	3.0	1 to 3
Eggs	-2.3	-10.6	8.5	-3 to -6
Dairy products	-1.1	2.7	1.2	2 to 4
Fats and oils	4.3	-1.4	0.4	2 to 4
Fresh fruits and vegetables	4.6	-0.3	1.4	2 to 4
Fresh fruits	13.5	-5.0	-0.1	3 to 5
Fresh vegetables	2.2	2.3	6.3	2 to 4
Processed fruits and vegetables	-1.9	2.7	-1.5	2 to 4
Processed fruits	-3.7	4.5	-3.6	3 to 5
Processed vegetables	0.8	0.2	1.6	1 to 3
Sugar and sweets	3.7	2.9	0.3	1 to 3
Cereals and bakery products	4.1	3.9	3.6	3 to 5
Nonalcoholic beverages	0.5	0.2	0.0	0 to 1
Other prepared foods	4.5	2.2	2.6	2 to 4

Sources: Historical data, Bureau of Labor Statistics; forecast by Economic Research Service, USDA.

## Special Article



Jack Kelly Clark courtesy University of California statewide IPM Project

## Toward a New Era Of Pesticide Regulation

**T**he Clinton Administration's proposed overhaul of pesticide laws includes promotion of pest control with fewer pesticides, gives Federal regulators greater flexibility to modify pesticide use, and provides incentives to develop reduced-risk methods of pest control. The plan would also replace the current legislation's divergent standards for setting pesticide tolerances with a single, health-based, negligible-risk standard to apply both to fresh and processed foods.

The proposal—which addresses consumers' concerns that pesticide risks are currently too high—would probably lower risks to consumers, and may reduce risks to farmers, farmworkers, and the environment as well. However, producers could face higher pest control costs and reduced agricultural productivity, at least in the short term. The proposal contains provisions to offset the effect on producers—among these are incentives to develop nonchemical pest control practices, reduced-risk pesticides, and new pesticides for "minor use" crops such as fruits and vegetables.

### *Mechanics of The Proposal*

The new health-based risk standard, defined as a "a reasonable certainty of no harm," does not bind regulators to a specific numeric target. And in a departure from current Federal Food, Drug, and Cosmetic Act (FFDCA) requirements, the Environmental Protection Agency (EPA) would no longer consider benefits to producers in setting tolerance levels. A tolerance is the legally maximum residue of a pesticide on a particular food crop; setting a tolerance is a required part of the pesticide registration process.

The proposal attempts to avert significant dislocation in agricultural markets. Time-limited transitional tolerances would be granted for above-negligible-risk pesticides in some cases where alternatives are not yet available. These transitions would be granted after weighing the benefits to consumers of continued pesticide use against the risks to consumers.

The proposal mitigates the problem of older pesticides not meeting current standards. To bring currently registered pesticides into line with these standards, all pesticides would undergo a tolerance review within 7 years. Those pesticides identified as likely to exceed negligible risk would receive priority for tolerance review within 4 years after enactment. Registrants who failed to complete the necessary testing within these time frames would automatically lose their tolerances.

Applicants would be charged supplemental fees to cover the cost of the current reregistration effort mandated by the 1988 FIFRA amendment. All pesticide uses would be reviewed every 15 years to make sure that registration information meets current scientific standards.

The proposal also calls for changes in regulation to allow EPA to act more quickly and with greater flexibility. EPA would be given authority to take interim measures in response to new data raising concern about residue safety, by imposing a gradual phaseout or phase-down of uses while concerns are investigated. The proposal would simplify cancellation and suspension procedures, and allow EPA to require risk-reducing label changes without the full cancellation process.

In addition, the proposal supports development of reduced-risk pesticides and increased use of integrated pest management (IPM). The Congressional Office of Technology Assessment defines IPM as "the optimization of pest control in an economically and ecologically sound manner, accomplished by the coordinated use of multiple tactics to assure stable crop production, and to maintain pest damage below the economic injury level while minimizing hazards to humans, plants, and the environment."



The proposal's stated goal is to have 75 percent of farm acreage under IPM within 7 years. This would be supported through research on new IPM techniques, and through market-based incentives still under consideration. The Administration also supports "prescription use" of certain pesticides which might be needed as part of IPM systems. Incentives for development of reduced-risk pest control include priority in the registration process, and longer proprietary rights over toxicological and residue data supplied for registration.

Echoing the recent National Academy of Sciences (NAS) report on pesticides in children's diets, the proposal recommends acquiring more data on children's food consumption, pesticide residues, and toxicology. The proposal also calls for a periodic national baseline survey of all pesticide use (data on all pesticide use is currently unavailable) and expands record-keeping requirements from restricted pesticides to all pesticides. These data would be used in setting tolerances.

### ***Lowering Health Risks From Pesticides***

The major focus of the Administration's proposal is to reduce health risks to consumers from pesticides. Combining to bring this about would be a more aggressive tolerance review, changes in EPA's registration authority, and incentives for reduced pesticide use and development of reduced-risk pesticides.

The effect of moving to a risk-only standard for setting residue tolerances in food is difficult to predict. The impact of changing from balancing health risks against producer benefits to applying a risk-only standard will depend on to what extent benefits have mattered in current practice. Most commentators on EPA practices assert that benefits have usually had little weight. However, a recent Resources for the Future study suggests the opposite—that the extent of productivity benefits has influenced how large a cancer risk EPA has allowed. In that case, since much of the risk comes from older, widely used pesticides, whether EPA considers benefits will make a difference as reregistration proceeds.

The new health-based risk standard, which does not bind regulators to a specific numeric target, gives regulators discretion in setting current standards as well as the ability to adapt to changes in science over time. Regulators could interpret "a reasonable certainty of no harm" as an absolute certainty and impose a very strict risk standard, or they could allow some unspecified level of risk.

The greatest impact on risk may come from the 7-year tolerance review, the 15-year registration update, and streamlined procedures for usage changes and suspensions. Under the proposal for tolerance review, registrants face automatic revocation of tolerances if adequate data are not provided by certain deadlines. The tolerance review process could lead to reductions in risk from cancellation or modification of older pesticide registrations.

The proposed review of registrations every 15 years would address the problem of older pesticides not meeting current standards. Also, "phasedown" authority would give EPA the power to translate new concerns about risk into use reductions. Simplified processes for changes in usage instructions, and for temporary suspension, also would allow risks to be reduced while important scientific issues are resolved.

The proposal's requirements for more attention to children's risks may not have a large impact because on this issue the proposal does not greatly differ from current EPA policy. Although not required by law, EPA already takes children's intake levels into account and requires some testing for developmental toxicity, and in response to the NAS report, EPA is expanding requirements for developmental toxicity testing. The proposal would codify this level of attention to children's risks.

The proposal encourages further study of the NAS recommendations. If adopted, some of the recommendations could have a large impact on pesticide availability. NAS recommended reducing the acceptable intake limits for pesticide residues when data on developmental toxicity are questionable or inadequate. Intake limits would include nonfood sources of residues and consider the intake of all pesticides with similar toxic effects simultaneously. Each of the recommendations could reduce tolerances for some pesticides.

### ***Impact on Producers Is Uncertain***

The proposal indicates the Administration's clear intention to reduce farmers' use of higher risk pesticides. The vast majority of farmers currently use pesticides—including higher risk pesticides—routinely, just as they use seeds or particular cultivation practices. If nonpesticide or lower risk pesticide substitutes are far along in the development pipeline, a wide-scale transition from conventional production practices to reduced-risk production practices could occur without significant disruptions in the food supply.

To offset potential productivity decreases, the proposal suggests strong support for IPM. Because IPM is characterized as an approach to pest control rather than a particular set of techniques, broadly substituting IPM for scheduled pesticide use will require developing an enormous number of pest management programs, each unique to specific locations, crops, and pests.

While research on IPM and reducing pesticide use has been proceeding for many years, only small portions of research and extension budgets have been allocated to developing and promoting IPM and other less chemical-intensive production methods. Whether IPM could substitute for current production methods is uncertain, and it would likely require substantial reallocation of research and extension funds.

## Special Article

## Dilemmas in Current Pesticide Regulations

Regulation of pesticide products is governed by two statutes: the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Federal Food, Drug, and Cosmetic Act (FFDCA). Under FIFRA, the Environmental Protection Agency (EPA) regulates the sale, labeling, and use of pesticides through registration. Under FFDCA, EPA regulates pesticide residues in foods and feeds by establishing residue tolerance levels for specific pesticide/crop combinations.

When EPA registers a pesticide, the agency specifies how it can be used on a particular crop. In deciding whether to grant or deny a registration, EPA considers the pesticide's effectiveness in controlling pests, the exposure levels for farmworkers and consumers (human health issues include cancer and other illnesses), and potential damage to the environment and to wildlife.

Most provisions of FIFRA and FFDCA encourage regulators to make pesticide regulatory decisions balancing the economic benefits of greater productivity against health and environmental risks. However, there are critical differences in the statutes regulating fresh versus processed foods. Section 408 of FFDCA demands a balancing of risks and benefits for raw agricultural commodities, and makes no mention of treating different risks differently. For example, it allows known low-risk carcinogens in the food supply when regulators anticipate countervailing benefits. But if a pesticide concentrates during food processing, it is considered a food additive and subject to section 409, which requires decisions based only on health considerations.

The most contentious aspect of current legislation centers on the Delaney Clause, included in section 409, which further requires that when a concentrating pesticide is carcinogenic, regulators cannot grant a tolerance. Any food containing this type of residue is considered adulterated and subject to seizure. Since EPA refuses to grant a 408 tolerance when it cannot grant a 409 tolerance, this connection can eliminate farm use of a pesticide.

Critics of the current regulatory process argue that a policy of separate tolerances and tolerance decision criteria for fresh and processed foods is inconsistent. Whether the

source of exposure to a pesticide is in fresh or processed products is probably irrelevant to its human health effects.

Other language in FFDCA subjects most tolerance decisions to section 408 provisions. If residues on the processed form of a product do not exceed the legal tolerance established for the raw commodity, then a 409 tolerance is not required. This language is the source of several other apparent inconsistencies in the way pesticides are regulated. It raises the possibility of perverse outcomes in the case of pesticides showing any evidence of carcinogenicity.

With different standards, regulatory activities intended to reduce risks can unwittingly raise risks. Suppose, for example, two equally effective and equally used competitive pesticides are under regulatory review. Further, suppose one is a high-risk carcinogen and the other is only weakly carcinogenic. If the weakly carcinogenic pesticide marginally concentrates and the other does not, and the concentrating pesticide fails the Delaney test of zero-risk, then use of the higher risk carcinogen would increase.

Over the last two decades, improvements in the technology of residue detection and the understanding of health and environmental impacts of pesticides have generated a more rigorous testing regime for registration. In 1958, when the Delaney Clause was introduced, there were few known carcinogens, and the technology available for detection measured residues in parts per thousand. Today there are many known carcinogens, natural and synthetic, and residues are measured in parts per billion.

This change in science has created a regulatory dilemma. Older chemicals registered for use several decades ago were held to a lower risk standard than pesticides developed today. If competition from newer, less carcinogenic pesticides had been allowed, the benefits of retaining use of older pesticides would have been considered much smaller. As it is, the stated benefits are exaggerated, making their registrations difficult to cancel. Recognizing this problem, Congress in 1988 required EPA to reregister pesticides registered before November 1984, to ensure compliance with current health and environmental risk standards.

### New Procedures To Speed Reregistration

Under the current reregistration process for older pesticides, initiated in 1988, EPA had completed preliminary reviews of only 17 of the 194 high-priority candidates by late 1993. This backlog reflects two important obstacles:

Even if IPM methods could provide the same level of pest control, it is not known whether IPM will be economically viable or whether such methods will be available before the proposed transitional, time-limited tolerances run out. If adopting IPM programs proves too difficult or expensive, farmers could continue to farm, but their land might be much less productive, and their other production options might have unwanted environmental side effects, such as expanding cultivation to marginal lands and disrupting wildlife habitat.



The proposal could maintain agricultural productivity while reducing risks if effective, low-risk alternatives are in the research pipeline and if the cost of alternatives is similar to the pesticides they replace. To encourage development of biologically based pesticides, time-limited conditional registrations would be per-

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*The staff of Agricultural Outlook  
wishes its readers peace and  
happiness in the new year.*

# Statistical Indicators

## Summary Data

Table 1.—Key Statistical Indicators of the Food & Fiber Sector

	1992	1993					1994		
	Annual	I	II	III	IV F	Annual F	J F	II F	Annual F
Prices received by farmers (1977=100)	140	139	148	140	144	142	—	—	—
Livestock & products	157	159	167	161	158	163	—	—	—
Crops	121	117	128	118	129	121	—	—	—
Prices paid by farmers, (1977=100)									
Production items	174	176	179	178	181	179	—	—	—
Commodities & services, interest, taxes, & wages	191	194	197	197	199	197	—	—	—
Cash receipts (\$ bil.) 1/	169	164	—	—	—	—	—	—	—
Livestock (\$ bil.)	86	86	—	—	—	—	—	—	—
Crops (\$ bil.)	83	78	—	—	—	—	—	—	—
Market basket (1982-84=100)									
Retail cost	138	141	142	—	—	—	—	—	—
Farm value	103	105	107	—	—	—	—	—	—
Spread	157	160	160	—	—	—	—	—	—
Farm value/retail cost (%)	26	26	27	—	—	—	—	—	—
Retail prices (1982-84=100)									
Food	138	140	141	141	141	141	—	—	—
At home	137	139	140	140	140	140	—	—	—
Away from home	141	142	143	144	144	143	—	—	—
Agricultural exports (\$ bil.) 2/	42.4	11.4	10.1	9.2	11.6	42.5	—	—	—
Agricultural imports (\$ bil.) 2/	24.3	6.4	6.3	6.2	6.1	25.0	—	—	—
Commercial production									
Red meat (mil. lb.)	40,795	9,716	9,993	10,360	10,402	40,471	9,955	10,172	41,381
Poultry (mil. lb.)	26,398	6,542	6,987	7,027	6,970	27,526	6,650	7,275	28,780
Eggs (mil. doz.)	5,883	1,458	1,471	1,487	1,535	5,951	1,485	1,490	6,015
Milk (bil. lb.)	151.7	37.8	39.6	37.5	37.0	151.9	37.9	40.0	153.3
Consumption, per capita									
Red meat and poultry (lb.)	208.4	50.4	51.1	52.4	53.9	207.7	51.2	52.0	211.8
Corn beginning stocks (mil. bu.) 3/	—	1,100.3	7,906.4	5,678.2	3,709.4	—	2,112.7	—	—
Corn use (mil. bu.) 3/	7,918.1	2,674.1	2,229.2	1,970.8	1,599.5	8,473.8	—	—	7,750.0
Prices 4/									
Choice steers—Neb. Direct (\$/cwt)	75.36	80.65	79.78	73.77	70-74	76-77	71-77	72-78	71-77
Barrows & gilts—I.A. So. MN (\$/cwt)	43.03	44.92	47.59	48.05	45-49	46-47	45-51	46-52	45-51
Broilers—12-city (cts./lb.)	52.6	53.1	55.8	563.9	52-56	54-55	50-56	50-56	50-56
Eggs—NY gr. A large (cts./doz.)	65.4	75.6	73.4	69.6	69-73	72-73	68-74	57-63	67-73
Milk—all at plant (\$/cwt)	13.09	12.33	12.9	12.67	13.05-13.45	12.75-12.85	11.50-12.50	10.90-11.90	11.45-12.45
Wheat—KC HRW ordinary (\$/bu.)	3.91	3.82	3.48	3.35	—	—	—	—	—
Corn—Chicago (\$/bu.)	2.41	2.18	2.27	2.36	—	—	—	—	—
Soybeans—Chicago (\$/bu.)	5.68	5.63	5.95	6.66	—	—	—	—	—
Cotton—Avg. spot 41-34 (cts./lb.)	53.9	55.2	55.7	53.8	—	—	—	—	—
	1985	1986	1987	1988	1989	1990	1991	1992	1993 F
Farm real estate values 5/									
Nominal (\$ per acre)	713	640	599	632	661	668	681	684	700
Real (1982 \$)	657	568	518	530	533	517	505	487	486

1/ Quarterly data seasonally adjusted at annual rates. 2/ Annual data based on Oct.-Sept. fiscal years ending with year indicated. 3/ Sept.-Nov. first quarter; Dec.-Feb. second quarter; Mar.-May third quarter; Jun.-Aug. fourth quarter; Sept.-Aug. annual. Use includes exports & domestic disappearance. 4/ Simple averages, Jan.-Dec. 5/ 1990-93 values as of January 1. 1986-89 values as of February 1. 1984-85 values as of April 1. F = forecast. — = not available.



# U.S. & Foreign Economic Data

## Table 2.—U.S. Gross Domestic Product & Related Data

	Annual			1992		1993		
	1990	1991	1992	III	IV	I	II	III P
\$ billion (quarterly data seasonally adjusted at annual rates)								
Gross domestic product	5,548.1	5,722.9	6,038.5	6,059.5	6,194.4	6,261.6	6,327.6	6,396.3
Gross national product	5,567.8	5,737.1	6,045.8	6,067.3	6,191.9	6,262.1	6,327.1	—
Personal consumption expenditures	3,781.2	3,906.4	4,139.9	4,157.1	4,256.2	4,296.2	4,359.9	4,418.2
Durable goods	488.2	457.6	497.3	500.9	516.6	515.3	531.6	542.0
Nondurable goods	1,229.2	1,257.9	1,300.9	1,305.7	1,331.7	1,335.3	1,344.8	1,351.9
Clothing & shoes	207.3	213.0	228.2	230.7	236.1	233.1	235.2	237.9
Food & beverages	604.8	621.4	633.7	631.7	647.6	648.2	654.1	658.7
Services	2,063.8	2,190.7	2,341.6	2,350.5	2,407.9	2,445.5	2,483.4	2,524.3
Gross private domestic investment	808.9	736.9	796.5	802.2	833.3	874.1	874.1	882.5
Fixed investment	802.0	745.5	789.1	792.5	821.3	839.5	861.0	874.3
Change in business inventories	6.9	-8.6	7.3	9.7	12.0	34.6	13.1	8.2
Net exports of goods & services	-71.4	-19.6	-29.6	-38.8	-38.8	-48.3	-65.1	-65.2
Government purchases of goods & services	1,047.4	1,099.3	1,131.8	1,139.1	1,143.8	1,139.7	1,158.6	1,160.8
1987 \$ billion (quarterly data seasonally adjusted at annual rates)								
Gross domestic product	4,897.3	4,861.4	4,986.3	4,998.2	5,068.3	5,078.2	5,102.1	5,138.0
Gross national product	4,918.5	4,874.5	4,994.0	5,006.4	5,068.4	5,080.7	5,104.1	—
Personal consumption expenditures	3,272.6	3,258.6	3,341.6	3,350.9	3,397.2	3,403.8	3,432.7	3,467.9
Durable goods	443.1	426.6	456.6	459.0	473.4	471.9	484.2	493.0
Nondurable goods	1,060.7	1,048.2	1,082.9	1,082.9	1,081.8	1,076.0	1,083.1	1,092.3
Clothing & shoes	186.2	184.7	193.7	195.4	200.0	194.8	197.8	200.4
Food & beverages	523.9	518.7	520.5	518.2	529.3	526.7	529.6	531.5
Services	1,768.8	1,783.8	1,822.3	1,829.0	1,842.0	1,855.9	1,865.4	1,882.6
Gross private domestic investment	746.8	675.7	732.9	739.6	763.0	803.0	803.6	811.8
Fixed investment	741.1	684.1	726.4	730.0	754.3	773.7	790.6	804.5
Change in business inventories	5.7	-8.4	6.5	9.6	6.7	29.3	13.0	7.3
Net exports of goods & services	-54.7	-19.1	-33.6	-42.5	-38.8	-59.9	-75.2	-80.1
Government purchases of goods & services	932.6	946.3	945.2	950.2	946.9	931.3	941.1	938.4
GDP implicit price deflator (% change)	4.4	3.9	2.9	1.0	3.3	3.6	2.3	1.6
Disposable personal income (\$ bil.)	4,050.5	4,230.5	4,570.2	4,497.0	4,657.6	4,597.5	4,692.2	4,719.5
Disposable per. income (1987 \$ bil.)	3,524.5	3,529.0	3,632.5	3,624.8	3,717.6	3,642.6	3,694.4	3,704.4
Per capita disposable per. income (\$)	16,205	16,741	17,615	17,577	18,153	17,876	18,196	18,249
Per capita dis. per. income (1987 \$)	14,101	13,965	14,219	14,169	14,490	14,163	14,326	14,324
U.S. population, total, incl. military abroad (mil.) *	249.9	252.7	255.5	255.9	256.6	257.2	257.9	258.6
Civilian population (mil.) *	247.6	250.5	253.5	253.9	254.7	255.4	256.1	256.9
	Annual			1992		1993		
	1990	1991	1992	Sept	June	July	Aug	Sept
Monthly data seasonally adjusted								
Industrial production (1987=100)	106.0	104.1	106.5	106.2	110.5	110.7	110.9	111.0
Leading economic indicators (1982=100)	143.8	143.4	148.9	148.7	151.6	151.6	152.9	153.6
Civilian employment (mil. persons)	117.9	116.9	117.6	117.7	119.2	119.3	119.7	119.4
Civilian unemployment rate (%)	5.5	6.7	7.4	7.5	7.0	6.8	6.7	6.7
Personal income (\$ bil. annual rate)	4,673.8	4,650.9	5,144.9	5,172.4	5,373.6	5,359.2	5,429.7	5,440.1
Money stock—M2 (daily avg.) (\$ bil.) 1/	3,345.5	3,445.8	3,494.9	3,479.1	3,510.9	3,516.8	3,522.5	3,535.3
Three-month Treasury bill rate (%)	7.51	5.42	3.45	2.97	3.10	3.05	3.05	2.96
AAA corporate bond yield (Moody's) (%)	9.32	6.77	8.14	7.92	7.33	7.17	6.85	6.66
Housing starts (1,000) 2/	1,193	1,014	1,200	1,218	1,248	1,232	1,314	1,351
Auto sales at retail, total (mil.)	9.5	8.4	8.4	8.3	8.8	8.6	8.6	—
Business inventory/sales ratio	1.53	1.54	1.50	1.50	1.46	1.47	1.48	—
Sales of all retail stores (\$ bil.) 3/	1,849.8	1,865.8	1,956.5	1,84.4	172.6	173.4	174.3	174.4
Nondurable goods stores (\$ bil.)	1,178.8	1,211.6	1,257.3	105.1	108.1	108.2	108.0	108.8
Food stores (\$ bil.)	369.8	376.9	384.0	31.9	32.7	32.7	32.9	32.8
Eating & drinking places (\$ bil.)	191.0	196.9	201.9	16.9	17.5	17.5	17.6	17.6
Apparel & accessory stores (\$ bil.)	95.8	97.5	105.0	8.9	8.9	6.9	8.8	8.9

1/ Annual data as of December of the year listed. 2/ Private, including farm. 3/ Annual total. P = preliminary. — = not available.  
 Note: \* Population estimates based on 1990 census.

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Table 3.—Foreign Economic Growth, Inflation, &amp; Exports

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992 E	1993 F	1994 F	Average 1983-92
Annual percent change													
World, less U.S.													
Real GDP	2.4	3.6	3.4	3.0	3.5	4.4	3.5	3.0	1.3	1.2	0.8	2.4	2.8
GDP deflator	8.8	8.2	8.6	7.8	9.0	9.4	10.8	23.7	16.0	53.5	41.1	28.8	15.8
Real exports	2.7	8.7	3.8	2.1	6.0	7.0	7.8	6.2	3.0	2.4	2.8	4.3	5.0
Developed less U.S.													
Real GDP	2.1	3.2	3.4	2.7	3.2	4.5	3.8	3.5	1.4	1.1	-0.2	1.8	2.9
GDP deflator	6.6	5.2	4.6	4.3	2.9	3.3	4.1	3.2	3.4	4.5	2.8	2.7	4.2
Real exports	3.5	10.8	6.2	-0.2	2.9	6.2	7.9	8.9	3.9	2.6	2.0	3.7	5.0
Eastern Europe & F.S.U.													
Real GDP	3.6	4.0	2.3	3.6	2.6	3.8	1.5	-3.1	-10.5	-12.6	-7.1	-3.6	-0.5
GDP deflator 1/	4.2	5.0	6.4	8.1	12.8	35.3	41.3	192.3	65.6	215.1	91.6	51.5	58.8
Real exports	4.8	8.2	-4.0	9.1	7.6	8.5	-5.3	-6.9	-23.0	-13.7	-3.5	0.6	-1.7
Developing													
Real GDP	1.2	4.2	3.7	3.0	4.4	3.8	2.8	4.1	4.4	5.8	6.1	5.0	3.7
GDP deflator	38.7	37.3	36.4	25.5	33.1	21.1	18.1	18.5	13.8	15.3	13.9	13.1	25.6
Real exports	0.4	7.2	1.7	7.5	11.1	9.4	9.0	5.6	5.7	4.9	6.6	6.4	6.2
Asia													
Real GDP	7.8	7.6	6.5	6.3	7.4	9.0	6.2	6.2	3.9	6.7	6.6	6.3	6.8
GDP deflator	6.3	7.5	5.9	4.4	7.8	8.2	6.1	8.4	8.5	8.6	6.2	5.2	7.2
Real exports	6.4	11.3	2.9	19.0	15.8	14.9	8.2	7.4	9.5	8.3	8.9	8.5	10.4
Latin America													
Real GDP	-2.6	3.9	3.3	4.5	3.2	0.6	1.3	-0.1	3.1	2.2	3.0	3.7	1.9
GDP deflator 2/	30.3	40.8	69.0	62.8	125.5	86.5	35.9	29.6	22.7	23.6	21.1	19.8	50.7
Real exports	2.0	12.0	2.0	0.0	8.0	6.8	10.4	3.2	3.3	3.1	6.4	7.3	5.1
Africa													
Real GDP	1.1	2.2	2.3	1.4	0.6	2.9	2.8	0.9	2.2	1.1	2.7	3.3	1.7
GDP deflator	8.9	9.6	10.6	5.2	9.6	10.7	18.4	8.4	5.8	11.8	10.8	9.8	9.7
Real exports	-5.3	-1.5	3.5	-1.0	0.0	2.9	5.0	8.4	2.1	0.1	4.8	2.9	1.4
Middle East													
Real GDP	4.5	1.2	1.7	-3.6	-0.1	-0.2	2.5	5.8	2.9	4.9	4.8	4.2	2.0
GDP deflator	-4.5	1.2	3.1	5.7	14.6	9.5	13.5	20.4	2.7	9.6	12.8	11.8	7.8
Real exports	-19.8	-6.7	-7.1	-3.8	24.8	4.8	21.0	6.0	2.9	13.8	4.9	15.8	3.6

1/ Excludes Yugoslavia starting in 1989. 2/ Excludes Argentina, Brazil, &amp; Peru starting in 1989. E = estimate. F = forecast.

Information contact: Alberto Jorardo, (202) 219-0705.

## Farm Prices

Table 4.—Indexes of Prices Received &amp; Paid by Farmers, U.S. Average

	Annual			1992		1993					
	1990	1991	1992	Oct	May	June	July	Aug	Sept R	Oct P	
1977 = 100											
Prices received											
All farm products	149	145	140	138	144	140	140	142	145	144	
All crops	127	129	121	117	120	112	118	123	128	129	
Food grains	123	115	139	131	124	113	114	118	123	127	
Feed grains & hay	123	117	116	105	113	110	113	115	113	117	
Feed grains	118	116	114	102	106	104	110	112	109	112	
Cotton	107	108	88	89	88	88	89	88	88	89	
Tobacco	152	161	154	163	141	141	141	143	155	157	
Oil-bearing crops	94	91	86	84	92	93	101	101	97	92	
Fruit, all	188	262	181	163	142	146	142	192	258	282	
Fresh market 1/	196	285	185	162	137	148	143	203	284	313	
Commercial vegetables	142	135	155	174	182	123	140	147	148	128	
Fresh market	144	140	157	179	197	118	143	152	152	128	
Potatoes & dry beans	189	141	124	121	177	154	184	144	131	132	
Livestock & products	170	181	157	158	168	168	181	182	180	158	
Meat animals	193	188	176	176	192	188	182	183	181	178	
Dairy products	141	126	135	138	134	135	132	129	131	133	
Poultry & eggs	131	124	117	118	130	129	124	130	128	128	
Prices paid											
Commodities & services,											
interest, taxes, & wage rates	184	189	181	192	197	197	197	197	197	199	
Production items	171	174	174	175	179	179	178	178	178	181	
Feed	128	123	123	119	—	—	124	—	—	127	
Feeder livestock	213	214	202	208	—	—	218	—	—	216	
Seed	185	163	162	162	—	—	169	—	—	169	
Fertilizer	131	134	131	128	—	—	129	—	—	127	
Agricultural chemicals	139	151	159	161	—	—	166	—	—	166	
Fuels & energy	204	203	199	205	—	—	198	—	—	203	
Farm & motor supplies	154	157	160	161	—	—	159	—	—	159	
Autos & trucks	231	244	258	262	—	—	275	—	—	276	
Tractors & self-propelled machinery	202	211	219	224	—	—	223	—	—	237	
Other machinery	216	228	233	235	—	—	245	—	—	248	
Building & fencing	144	148	150	152	—	—	158	—	—	158	
Farm services & cash rent	188	171	172	172	—	—	172	—	—	172	
Int. payable per acre on farm real estate debt	177	169	167	167	—	—	164	—	—	164	
Taxes payable per acre on farm real estate	158	164	171	171	—	—	178	—	—	178	
Wage rates (seasonally adjusted)	191	200	209	201	—	—	222	—	—	222	
Production items, interest, taxes, & wage rates	172	175	176	176	—	—	180	—	—	182	
Ratio, prices received to prices paid (%) 2/	81	77	73	72	73	71	71	72	74	72	
Prices received (1910-14=100)	681	665	637	629	680	639	639	651	681	658	
Prices paid, etc. (parity index) (1910-14=100)	1,267	1,298	1,317	1,323	—	—	1,356	—	—	1,366	
Parity ratio (1910-14=100) (%) 2/	54	51	49	48	—	—	47	—	—	48	

1/ Fresh market for noncitrus, fresh market &amp; processing for citrus. 2/ Ratio of index of prices received for all farm products to index of prices paid for commodities &amp; services, interest, taxes, &amp; wage rates. Ratio uses the most recent prices paid index. Prices paid data are quarterly &amp; will be published in January, April, July, &amp; October. R = revised. P = preliminary. — = not available.

Information contact: Ann Duncan (202) 219-0313.



**Table 5.—Prices Received by Farmers, U.S. Average**

	Annual 1/			1992	1993					
	1990	1991	1992	Oct	May	June	July	Aug	Sept R	Oct P
CROPS										
All wheat (\$/bu.)	2.81	3.00	3.24	3.22	3.10	2.82	2.85	2.95	3.09	3.18
Rice, rough (\$/cwt)	6.70	7.58	5.95	6.40	5.24	5.02	4.92	4.98	5.13	5.41
Corn (\$/bu.)	2.28	2.37	2.05	2.05	2.13	2.09	2.22	2.25	2.21	2.28
Sorghum (\$/cwt)	3.79	4.01	3.30	3.23	3.34	3.41	3.72	3.77	3.69	3.75
All hay, baled (\$/ton)	80.80	71.20	73.20	70.30	88.30	80.50	77.20	77.40	77.60	82.50
Soybeans (\$/bu.)	5.74	5.58	5.50	5.26	5.81	5.90	6.57	6.55	6.21	5.87
Cotton, upland (cts./lb.)	67.1	56.8	—	53.9	53.2	53.0	54.1	53.1	52.2	53.7
Potatoes (\$/cwt)	6.08	4.96	5.28	4.55	7.63	6.57	7.93	5.91	5.10	5.04
Lettuce (\$/cwt) 2/	11.50	11.40	12.40	13.70	12.50	11.50	18.90	15.20	18.90	11.40
Tomatoes fresh (\$/cwt) 2/	27.30	31.80	36.20	80.40	58.50	21.90	20.00	33.30	30.30	20.80
Onions (\$/cwt)	10.50	12.50	12.80	12.20	24.10	10.30	13.10	15.00	13.50	11.90
Dry edible beans (\$/cwt)	18.50	15.60	20.70	20.30	17.70	16.50	18.70	19.10	21.30	23.20
Apples for fresh use (cts./lb.)	20.9	25.1	19.2	21.2	15.3	16.1	18.0	23.1	26.5	22.4
Pears for fresh use (\$/ton)	360.00	385.00	378.00	390.00	478.00	538.00	401.00	353.00	400.00	391.00
Oranges, all uses (\$/box) 3/	6.13	6.78	5.79	2.29	3.65	3.89	4.10	5.44	10.52	11.87
Grapefruit, all uses (\$/box) 3/	5.88	5.55	6.25	6.04	1.62	0.98	0.14	2.44	3.51	8.13
LIVESTOCK										
Beef cattle (\$/cwt)	74.80	72.90	71.38	71.80	76.90	74.70	72.60	72.60	71.40	68.90
Calves (\$/cwt)	96.50	99.90	89.65	86.00	100.00	96.00	96.90	95.10	93.30	92.30
Hogs (\$/cwt)	54.00	48.80	41.88	42.00	47.00	48.20	45.90	47.50	47.80	47.20
Lambs (\$/cwt)	56.00	52.50	60.78	55.40	61.80	56.80	54.20	59.40	64.70	63.50
All milk, sold to plants (\$/cwt)	13.74	12.27	13.15	13.40	13.00	13.10	12.80	12.50	12.70	12.90
Milk, manuf. grade (\$/cwt)	12.34	11.05	11.91	12.20	12.40	11.90	11.30	11.00	11.90	12.20
Broilers (cts./lb.)	32.4	31.0	30.8	33.1	35.7	34.4	35.0	36.3	36.5	35.1
Eggs (cts./doz.) 4/	70.4	66.2	57.7	56.8	62.9	65.4	57.6	61.3	58.1	60.0
Turkeys (cts./lb.)	38.4	37.7	38.0	38.5	38.4	37.3	38.9	39.5	40.4	43.1
Wool (cts./lb.) 5/	80.0	55.0	74.0	71.0	55.0	55.1	48.6	38.8	37.8	51.6

1/ Season average price by crop year for crops. Calendar year average of monthly prices for livestock. 2/ Excludes Hawaii. 3/ Equivalent on-tree returns.  
 4/ Average of all eggs sold by producers including hatching eggs & eggs sold at retail. 5/ Average local market price, excluding incentive payments.  
 P = preliminary. R = revised. — = not available.

Information contact: Ann Duncan (202) 219-0313.

## Producer & Consumer Prices

**Table 6.—Consumer Price Index for All Urban Consumers, U.S. Average (Not Seasonally Adjusted)**

	Annual	1992		1993						
	1992	Oct	Mar	Apr	May	June	July	Aug	Sept	Oct
	1982-84=100									
Consumer Price Index, all items	140.3	141.8	143.6	144.0	144.2	144.4	144.4	144.8	145.1	145.7
Consumer Price Index, less food	140.8	138.9	144.2	144.6	144.8	145.1	145.2	145.6	145.1	146.4
<b>All food</b>	<b>137.9</b>	<b>138.3</b>	<b>140.1</b>	<b>140.6</b>	<b>141.1</b>	<b>140.4</b>	<b>140.3</b>	<b>140.8</b>	<b>141.1</b>	<b>141.6</b>
Food away from home	140.7	141.3	142.4	142.7	142.9	143.2	143.4	143.6	143.8	144.0
Food at home	136.8	137.2	139.4	140.0	140.7	139.3	139.1	139.7	140.0	140.8
Meats 1/	130.7	131.1	133.1	133.8	134.7	134.9	135.5	135.6	135.5	135.9
Beef & veal	132.3	132.6	136.3	137.6	138.2	137.6	137.4	137.4	137.0	137.2
Pork	127.8	128.7	129.0	128.5	130.5	132.1	134.2	133.8	134.6	134.6
Poultry	131.4	133.3	135.7	135.2	136.6	136.5	136.0	137.5	138.0	139.2
Fish	151.7	151.4	157.8	159.7	154.7	154.8	153.2	154.1	155.4	157.4
Eggs	108.3	109.3	120.3	126.9	114.9	116.4	115.1	117.4	113.4	114.9
Dairy products 2/	128.5	130.1	128.8	128.0	128.0	129.8	130.2	130.5	129.6	129.5
Fats & oils 3/	129.8	129.9	130.2	130.2	129.4	130.1	130.4	130.1	130.0	130.0
Fresh fruit	184.2	182.1	184.4	184.6	188.0	176.1	178.7	184.7	193.3	197.7
Processed fruit	137.7	136.4	132.0	132.1	130.7	129.7	131.0	132.2	132.4	132.8
Fresh vegetables	157.9	155.2	173.7	179.3	189.6	167.1	155.8	156.1	157.4	157.7
Potatoes	141.5	143.0	142.4	152.0	156.0	163.4	165.2	165.8	158.1	152.1
Processed vegetables	128.8	129.1	130.2	130.4	129.9	130.9	131.2	131.4	130.9	131.7
Cereals & bakery products	151.5	152.8	154.8	155.4	156.3	156.7	157.2	157.5	157.7	158.1
Sugar & sweets	133.1	133.7	132.8	133.2	133.4	133.1	133.2	133.7	133.3	134.1
<b>Beverages, nonalcoholic</b>	<b>114.3</b>	<b>114.1</b>	<b>114.8</b>	<b>114.2</b>	<b>115.0</b>	<b>114.6</b>	<b>114.4</b>	<b>114.1</b>	<b>113.8</b>	<b>115.4</b>
<b>Apparel</b>										
Apparel, commodities less footwear	130.2	133.7	135.2	135.9	133.4	129.7	126.9	130.0	133.0	134.7
Footwear	125.0	127.1	126.3	127.1	127.8	125.6	123.9	123.5	126.2	127.3
Tobacco & smoking products	219.8	225.6	236.3	237.3	237.9	236.2	235.8	227.9	215.1	214.0
<b>Beverages, alcoholic</b>	<b>147.3</b>	<b>148.2</b>	<b>149.4</b>	<b>149.7</b>	<b>149.5</b>	<b>149.6</b>	<b>149.6</b>	<b>149.7</b>	<b>149.9</b>	<b>150.1</b>

1/ Beef, veal, lamb, pork, & processed meat. 2/ Includes butter. 3/ Excludes butter.

Information contact: Ann Duncan (202) 219-0313.

Table 7.—Producer Price Indexes, U.S. Average (Not Seasonally Adjusted)

	Annual			1992	1993					
	1990	1991	1992	Sept	Apr	May R	June	July	Aug	Sept
	1982 = 100									
All commodities	116.3	118.5	117.2	118.0	119.3	119.7	119.6	119.3	118.8	118.7
Finished goods 1/	119.2	121.7	123.2	123.3	125.5	125.6	125.6	125.3	124.3	123.9
All foods 2/	123.2	122.2	120.9	120.7	124.4	125.0	123.2	123.1	123.3	123.4
Consumer foods	124.4	124.1	123.3	123.3	126.5	126.9	125.4	125.0	125.4	125.6
Fresh fruit & melons	118.1	129.9	84.0	73.4	74.0	90.7	82.3	79.5	84.2	91.5
Fresh & dried vegetables	118.1	103.8	115.0	107.5	174.0	164.3	104.5	116.3	117.6	115.4
Dried fruit	106.7	111.8	114.6	113.9	116.2	116.2	115.5	117.1	119.4	117.9
Canned fruit & juice	127.0	128.6	134.5	133.3	124.6	124.7	124.4	125.7	128.1	126.3
Frozen fruit & juice	139.0	116.3	125.9	121.7	104.6	105.2	112.4	117.0	114.6	114.8
Fresh veg. excl. potatoes	107.8	100.2	116.4	114.8	178.5	164.3	80.6	98.4	110.5	115.2
Canned veg. & juices	116.7	112.9	109.5	109.2	109.1	110.0	109.5	110.9	109.5	110.9
Frozen vegetables	118.4	117.6	116.4	116.7	118.7	119.9	120.8	121.2	121.1	122.1
Potatoes	157.3	125.7	118.4	118.1	144.0	142.3	147.5	137.3	143.7	134.0
Eggs for fresh use (1991=100)	3/	3/	78.6	85.8	91.9	82.9	87.6	77.5	89.0	75.7
Bakery products	141.0	146.6	152.5	153.4	156.1	156.0	156.4	156.8	156.8	157.3
Meats	117.0	113.5	106.7	106.6	113.9	114.7	113.4	111.2	109.9	110.2
Beef & veal	116.0	112.2	109.5	107.8	118.3	120.5	118.4	112.5	110.9	110.5
Pork	119.8	113.4	98.9	101.4	107.9	107.2	109.2	107.4	105.8	108.0
Processed poultry	113.6	109.9	109.0	111.1	109.9	111.6	111.4	110.1	112.9	115.3
Fish	147.2	149.5	156.1	150.0	161.2	159.1	156.2	147.2	146.2	147.9
Dairy products	117.2	114.6	117.9	120.0	117.2	118.5	119.8	119.4	117.9	118.3
Processed fruits & vegetables	124.7	119.6	120.8	119.8	116.1	116.7	117.5	119.0	118.4	119.1
Shortening & cooking oil	123.2	116.5	115.1	113.6	119.7	120.1	119.2	127.9	128.0	126.5
Soft drinks	122.3	125.5	125.6	125.3	126.7	126.3	126.6	125.5	126.0	125.8
Consumer finished goods less foods	115.3	118.7	120.8	121.4	122.7	123.3	123.5	123.0	121.0	120.6
Beverages, alcoholic	117.2	123.7	126.1	125.7	126.4	126.6	125.6	125.7	126.0	125.7
Apparel	117.5	119.6	122.2	122.7	123.3	123.3	122.9	123.5	123.2	123.3
Footwear	125.6	128.6	132.0	132.8	134.5	134.1	134.1	134.5	134.8	135.0
Tobacco products	221.4	249.7	275.3	274.1	296.2	296.9	290.2	287.3	211.3	213.5
Intermediate materials 4/	114.5	114.4	114.7	115.8	116.3	116.2	116.7	116.6	116.6	116.8
Materials for food manufacturing	117.9	115.3	113.9	114.5	114.9	115.6	115.1	116.6	116.3	116.5
Flour	103.8	96.8	109.5	106.2	110.5	107.2	106.2	105.7	109.6	106.3
Refined sugar 5/	122.7	121.6	119.8	119.6	118.4	118.2	117.4	118.1	119.9	119.4
Crude vegetable oils	115.8	103.0	97.1	93.2	104.0	104.1	100.0	114.9	114.2	111.5
Crude materials 6/	108.9	101.2	100.4	102.4	103.9	106.5	104.5	102.7	101.8	101.0
Foodstuffs & feedstuffs	113.1	105.5	105.1	102.9	110.4	112.2	107.3	107.7	108.1	107.5
Fruits & vegetables & nuts 7/	117.5	114.7	95.9	89.3	118.3	120.8	93.5	97.2	99.5	101.5
Grains	97.4	92.0	97.3	90.6	93.7	91.1	85.3	91.2	93.9	92.2
Livestock	115.6	107.9	104.7	103.4	113.0	112.8	109.8	105.0	107.1	105.7
Poultry, live	118.8	111.2	112.6	111.8	116.5	132.3	118.9	124.4	125.9	135.1
Fibers, plant & animal	117.8	115.1	89.8	93.8	91.5	93.3	90.5	90.8	88.5	89.4
Fluid milk	100.8	89.5	96.1	99.5	92.5	95.9	97.5	96.6	93.3	93.1
Oilseeds	112.1	106.4	107.5	105.1	112.2	114.2	109.6	127.9	123.8	118.4
Tobacco, leaf	95.8	101.1	101.0	106.1	97.6	91.8	91.8	91.8	93.1	99.6
Sugar, raw cane	119.2	113.7	112.1	112.7	113.8	111.4	112.4	114.2	115.9	115.3

1/ Commodities ready for sale to ultimate consumer. 2/ Includes all raw, intermediate, & processed foods (excludes soft drinks, alcoholic beverages, & manufactured animal feeds). 3/ New index beginning Dec. 1991. 4/ Commodities requiring further processing to become finished goods. 5/ All types & sizes of refined sugar. 6/ Products entering market for the first time that have not been manufactured at that point. 7/ Fresh & dried. R = revised

Information contact: Ann Duncan (202) 219-0313.



## Farm-Retail Price Spreads

Table 8.—Farm-Retail Price Spreads

	Annual			1992	1993					
	1990	1991	1992	Sept	Apr	May	June	July	Aug	Sept
<b>Market basket 1/</b>										
Retail cost (1982-84=100)	133.5	137.4	138.4	139.1	141.7	142.6	141.1	141.0	141.8	142.2
Farm value (1982-84=100)	113.1	106.1	103.4	104.0	108.5	108.9	105.0	104.2	103.8	104.7
Farm-retail spread (1982-84=100)	144.5	154.2	157.3	158.0	159.5	160.7	160.5	160.8	162.2	162.3
Farm value-retail cost (%)	29.7	27.0	26.2	26.2	26.8	26.8	26.1	25.9	25.6	25.8
<b>Meat products</b>										
Retail cost (1982-84=100)	128.5	132.5	130.7	130.9	133.8	134.7	134.9	135.5	135.6	135.5
Farm value (1982-84=100)	118.8	110.0	104.5	104.8	115.1	113.2	111.8	108.0	105.1	106.9
Farm-retail spread (1982-84=100)	140.4	155.6	157.5	157.7	153.0	156.8	158.6	163.7	166.9	164.9
Farm value-retail cost (%)	46.0	42.0	40.5	40.6	43.6	42.5	42.0	40.4	39.2	39.9
<b>Dairy products</b>										
Retail cost (1982-84=100)	126.5	125.1	128.5	129.7	128.0	128.0	129.8	130.2	130.5	129.6
Farm value (1982-84=100)	101.7	90.0	95.9	98.6	89.1	92.4	96.5	95.6	93.5	90.8
Farm-retail spread (1982-84=100)	149.5	157.5	158.6	158.3	163.9	160.8	160.5	162.1	164.6	165.4
Farm value-retail cost (%)	38.5	34.5	35.8	36.5	33.4	34.8	35.7	35.2	34.4	33.6
<b>Poultry</b>										
Retail cost (1982-84=100)	132.5	131.5	131.4	134.0	135.2	136.6	136.5	138.0	137.5	138.0
Farm value (1982-84=100)	107.6	102.5	104.0	104.1	108.2	115.4	111.3	113.7	117.5	118.5
Farm-retail spread (1982-84=100)	161.1	164.9	163.0	168.4	166.3	161.1	165.5	161.7	160.5	160.5
Farm value-retail cost (%)	43.5	41.7	42.4	41.6	42.8	45.2	43.6	44.7	45.7	46.0
<b>Eggs</b>										
Retail cost (1982-84=100)	124.1	121.2	108.3	111.6	128.9	114.9	116.4	115.1	117.4	113.4
Farm value (1982-84=100)	108.0	100.9	77.8	84.1	98.1	83.5	88.5	80.8	88.0	77.9
Farm-retail spread (1982-84=100)	153.2	157.6	163.2	161.1	178.6	171.3	166.5	176.7	170.2	177.2
Farm value-retail cost (%)	55.9	53.5	46.1	48.4	49.7	46.7	48.9	45.1	48.2	44.1
<b>Cereal &amp; bakery products</b>										
Retail cost (1982-84=100)	140.0	145.8	151.5	152.6	155.4	156.3	156.7	157.2	157.5	157.7
Farm value (1982-84=100)	90.5	85.3	94.7	89.9	91.2	88.0	83.5	85.5	88.1	87.4
Farm-retail spread (1982-84=100)	148.9	154.3	159.4	161.3	164.4	165.8	166.9	167.2	167.2	167.5
Farm value-retail cost (%)	7.9	7.2	7.7	7.2	7.2	6.9	6.5	6.7	6.8	6.8
<b>Fresh fruits</b>										
Retail cost (1982-84=100)	174.6	200.1	189.6	195.3	188.5	193.1	180.9	183.5	192.1	203.7
Farm value (1982-84=100)	128.3	174.4	122.5	128.1	132.5	132.8	133.4	121.2	134.2	151.1
Farm-retail spread (1982-84=100)	195.9	211.9	220.6	226.3	214.4	220.9	202.8	212.3	218.8	228.0
Farm value-retail cost (%)	23.2	27.5	20.4	20.7	22.2	21.7	23.3	20.9	22.1	23.4
<b>Fresh vegetables</b>										
Retail cost (1982-84=100)	151.1	154.4	157.9	152.8	179.3	189.6	187.1	155.8	156.1	157.4
Farm value (1982-84=100)	124.4	110.8	120.5	118.0	163.6	173.3	107.3	109.4	112.4	120.5
Farm-retail spread (1982-84=100)	164.9	176.8	177.2	171.7	187.4	198.0	197.6	179.7	178.5	176.4
Farm value-retail cost (%)	28.0	24.4	25.9	25.8	31.0	31.0	21.6	23.8	24.5	26.0
<b>Processed fruits &amp; vegetables</b>										
Retail cost (1982-84=100)	132.7	130.2	133.7	134.0	131.2	130.2	130.0	131.0	131.7	131.6
Farm value (1982-84=100)	144.0	120.6	129.0	127.9	102.7	102.2	101.4	103.8	103.7	103.9
Farm-retail spread (1982-84=100)	129.1	133.2	135.2	135.9	140.1	138.9	138.9	139.5	140.4	140.3
Farm value-retail cost (%)	25.6	22.0	22.9	22.7	18.6	18.7	18.6	18.8	18.7	18.8
<b>Fats &amp; oils</b>										
Retail cost (1982-84=100)	126.3	131.7	129.8	129.9	130.2	129.4	130.1	130.4	130.1	130.0
Farm value (1982-84=100)	107.1	98.0	93.2	89.1	101.0	101.1	101.6	114.3	107.8	109.9
Farm-retail spread (1982-84=100)	133.4	144.2	143.3	144.9	141.0	139.8	140.6	136.3	138.3	137.4
Farm value-retail cost (%)	22.8	20.0	19.3	16.4	20.9	21.0	21.0	23.6	22.3	22.7

	Annual			1992	1993					
	1990	1991	1992	Oct	May	June	July	Aug	Sept	Oct
<b>Beef, Choice</b>										
Retail price 2/ (cts./lb.)	281.0	286.3	284.6	285.6	304.2	297.9	296.7	290.9	288.4	288.5
Wholesale value 3/ (cts.)	189.6	182.5	179.6	177.5	195.3	185.2	175.9	179.4	176.3	171.6
Net farm value 4/ (cts.)	168.4	160.2	161.8	160.1	175.5	165.8	157.6	160.1	158.2	151.0
Farm-retail spread (cts.)	112.6	128.1	122.8	125.5	128.7	132.1	139.1	130.8	132.2	137.5
Wholesale-retail 5/ (cts.)	91.4	105.8	105.0	108.1	108.9	112.7	120.8	111.5	112.1	116.9
Farm-wholesale 6/ (cts.)	21.2	22.3	17.8	17.4	19.8	19.4	18.3	19.3	20.1	20.6
Farm value-retail price (%)	60	56	57	56	58	56	53	55	54	52
<b>Pork</b>										
Retail price 2/ (cts./lb.)	212.6	211.9	198.0	198.4	194.8	196.5	200.2	198.7	201.6	201.2
Wholesale value 3/ (cts.)	118.3	108.9	98.9	98.8	102.6	105.7	102.8	105.8	105.5	106.5
Net farm value 4/ (cts.)	87.2	78.4	67.8	67.1	74.9	77.0	73.6	76.9	77.0	75.0
Farm-retail spread (cts.)	125.4	133.5	130.2	131.3	119.9	119.5	126.6	121.8	124.6	126.2
Wholesale-retail 5/ (cts.)	94.3	103.0	99.1	99.6	92.2	90.8	97.4	92.9	96.1	94.7
Farm-wholesale 6/ (cts.)	31.1	30.5	31.1	31.7	27.7	28.7	29.2	28.9	28.5	31.5
Farm value-retail price (%)	41	37	34	34	38	39	37	39	38	37

1/ Retail costs are based on CPI-U of retail prices for domestically produced farm foods, published monthly by BLS. The farm value is the payment for the quantity of farm equivalent to the retail unit, less allowance for byproduct. Farm values are based on prices at first point of sale & may include marketing charges such as grading & packing for some commodities. The farm-retail spread, the difference between the retail price & the farm value, represents charges for assembling, processing, transporting, distributing. 2/ Weighted average price of retail cuts from pork & choice yield grade 3 beef. Prices from BLS. 3/ Value of wholesale (boxed beef) & wholesale cuts (pork) equivalent to 1 lb. of retail cuts adjusted for transportation costs & byproduct values. 4/ Market value to producer for live animal equivalent to 1 lb. of retail cuts, minus value of byproducts. 5/ Charges for retailing & other marketing services such as wholesaling, & in-city transportation. 6/ Charges for livestock marketing, processing, & transportation.

Information contacts: Denis Dunham (202) 219-0870, Larry Duewer (202) 219-0712.

Table 9.—Price Indexes of Food Marketing Costs

	Annual			1992			1993		
	1990	1991	1992	II	III	IV	I	II	III P
1967=100*									
Labor—hourly earnings									
& benefits	393.2	409.7	418.8	418.3	419.2	422.4	426.9	432.8	432.5
Processing	404.4	420.4	436.7	437.9	436.3	439.9	443.5	450.1	450.4
Wholesaling	422.0	443.8	458.6	456.5	460.0	463.9	469.6	475.7	475.8
Retailing	369.5	383.9	383.4	381.7	384.1	386.5	391.6	396.1	395.5
Packaging & containers									
Paperboard boxes & containers	323.9	320.3	324.8	324.8	325.1	324.9	324.2	323.5	323.2
Metal cans	455.0	470.5	476.1	479.6	477.7	477.7	478.0	478.2	478.0
Paper bags & related products	413.0	410.9	387.8	386.4	384.5	393.0	392.5	390.6	388.7
Plastic films & bottles	307.1	310.7	309.9	307.4	310.2	313.2	311.2	305.2	303.6
Glass containers	427.3	446.0	444.4	444.3	444.0	443.1	442.8	444.8	447.5
Metal foil	258.4	251.6	241.0	240.0	241.5	240.9	239.4	238.5	238.1
Transportation services	411.3	422.6	426.1	427.9	426.9	424.0	425.4	426.0	426.2
Advertising	433.0	460.1	484.0	482.0	486.0	490.2	500.2	505.8	507.0
Fuel & power	671.4	655.7	654.6	645.6	678.3	673.9	661.2	676.2	679.7
Electric	477.7	508.3	514.0	511.1	536.2	511.6	506.1	520.9	535.5
Petroleum	744.8	849.8	839.9	828.7	685.6	681.1	645.7	664.0	648.8
Natural gas	1,071.0	1,065.0	1,061.1	1,039.4	1,053.5	1,101.8	1,108.4	1,119.5	1,128.5
Communications, water & sewage	253.1	261.7	266.9	266.2	267.5	268.4	269.0	268.4	268.6
Rent	273.0	282.7	278.3	279.4	277.0	276.7	273.8	274.6	273.8
Maintenance & repair	426.7	442.7	454.8	453.5	455.2	458.6	462.6	466.2	466.4
Business services	405.6	425.4	441.9	440.9	442.5	447.7	451.9	457.9	460.1
Supplies	321.1	319.3	318.1	317.0	320.9	320.1	319.6	321.9	321.5
Property taxes & insurance	462.2	480.5	496.7	494.2	497.8	503.2	507.5	510.9	512.0
Interest, short-term	155.5	114.6	74.4	76.9	66.7	69.6	64.3	63.7	64.8
Total marketing cost index	397.6	409.3	415.8	415.0	417.2	419.1	421.4	425.3	425.5

\* Indexes measure changes in employee earnings & benefits & in prices of supplies & services used in processing, wholesaling, & retailing U.S. farm foods purchased for at-home consumption. P = preliminary.

Information contact: Denis Dunham (202) 219-0870.



## Livestock &amp; Products

Table 10.—U.S. Meat Supply &amp; Use

	Beg. stocks	Produc- tion 1/	Imports	Total supply	Exports	Ending stocks	Consumption		Primary market price 3/
							Total	Per capita 2/	
				Million pounds 4/			Pounds		
<b>Beef</b>									
1991	397	22,917	2,408	25,720	1,188	419	24,113	68.8	74.28
1992	419	23,088	2,440	25,945	1,324	360	24,261	68.5	75.38
1993 F	380	23,166	2,410	25,938	1,300	425	24,211	65.8	76-77
1994 F	425	23,993	2,370	26,788	1,400	350	25,038	67.2	71-77
<b>Pork</b>									
1991	298	15,999	775	17,070	283	388	18,399	50.4	49.89
1992	388	17,234	845	18,267	407	385	17,475	53.1	43.03
1993 F	385	16,870	885	17,940	410	375	17,155	51.6	46-47
1994 F	375	16,949	705	18,029	395	375	17,259	51.3	45-51
<b>Veal 5/</b>									
1991	8	308	0	312	0	7	305	1.0	98.94
1992	7	310	0	317	0	5	312	1.0	89.38
1993 F	5	281	0	286	0	5	281	0.9	95-96
1994 F	5	281		286		5	281	0.9	90-96
<b>Lamb &amp; mutton</b>									
1991	8	363	41	412	10	6	398	1.4	53.21
1992	6	348	50	404	8	8	388	1.4	61.00
1993 F	8	337	49	394	8	8	378	1.3	65-66
1994 F	8	341	50	399	8	9	382	1.3	61-67
<b>Total red meat</b>									
1991	707	39,585	3,223	43,515	1,481	820	41,214	119.6	---
1992	820	40,978	3,135	44,933	1,739	758	42,436	121.9	---
1993 F	758	40,654	3,144	44,556	1,718	813	42,025	119.4	---
1994 F	813	41,564	3,125	45,602	1,803	739	42,960	120.7	---
<b>Broilers</b>									
1991	26	19,591	0	19,617	1,281	36	18,320	63.7	64.8
1992	38	20,904	0	20,940	1,489	33	19,418	68.8	62.6
1993 F	33	22,009	0	22,042	1,820	33	20,189	68.7	54-55
1994 F	33	23,127	0	23,159	1,905	33	21,221	71.5	50-58
<b>Mature chicken</b>									
1991	224	508	0	732	28	274	429	1.7	---
1992	274	520	0	794	41	345	408	1.6	---
1993 F	345	510	0	855	60	325	471	1.8	---
1994 F	325	517	0	842	64	340	438	1.7	---
<b>Turkeys</b>									
1991	306	4,803	0	4,909	103	264	4,541	18.0	61.3
1992	264	4,777	0	5,041	171	272	4,599	18.0	60.2
1993 F	272	4,795	0	5,067	210	260	4,597	17.8	62-63
1994 F	280	4,911	0	5,171	225	275	4,671	17.9	59-65
<b>Total poultry</b>									
1991	557	24,701	0	25,258	1,392	575	23,291	83.4	---
1992	575	26,201	0	26,775	1,701	650	24,425	88.4	---
1993 F	650	27,315	0	27,964	2,090	618	25,256	88.3	---
1994 F	618	28,555	0	29,172	2,194	648	26,330	91.1	---
<b>Red meat &amp; poultry</b>									
1991	1,264	64,288	3,223	68,772	2,873	1,395	64,504	202.9	---
1992	1,395	67,179	3,135	71,708	3,440	1,408	66,861	208.3	---
1993 F	1,408	67,969	3,144	72,520	3,808	1,431	67,281	207.7	---
1994 F	1,431	70,119	3,125	74,674	3,997	1,387	69,290	211.8	---

1/ Total including farm production for red meats & federally inspected plus nonfederally inspected for poultry. 2/ Retail weight basis. (The beef carcass-to-retail conversion factor was 70.5). 3/ Dollars per cwt for red meat; cents per pound for poultry. Beef: Medium # 1, Nebraska Direct 1,100-1,300 lb.; pork: barrows & gilts, Iowa, Southern Minnesota; veal: farm price of calves; lamb & mutton: Choice slaughter lambs, San Angelo; broilers: wholesale 12-city average; turkeys: wholesale NY 8-16 lb. young hens. 4/ Carcass weight for red meats & certified ready-to-cook for poultry. 5/ Beginning 1989 veal trade no longer reported separately. F = forecast. --- = not available.

Information contacts: Polly Cochran or Maxine Davis (202) 219-0767.

Table 11.—U.S. Egg Supply &amp; Use

	Beg. stocks	Pro- duc- tion	Im- ports	Total supply	Ex- ports	Hatch- ing use	Ending stocks	Consumption		
								Total	Per capita	Wholesale price*
Million dozen										
1987	10.4	5,868.2	5.6	5,884.2	111.2	599.1	14.4	5,159.5	254.9	61.6
1988	14.4	5,784.2	5.3	5,803.9	141.8	605.9	15.2	5,041.0	246.9	62.1
1989	15.2	5,598.2	25.2	5,638.5	91.6	643.9	10.7	4,892.4	237.3	81.9
1990	10.7	5,665.6	9.1	5,685.3	100.5	678.5	11.6	4,894.7	235.0	82.2
1991	11.6	5,779.3	2.3	5,793.3	154.3	708.1	13.0	4,917.9	233.5	77.5
1992	13.0	5,882.7	4.3	5,899.9	157.0	728.4	13.5	5,001.0	235.0	65.4
1993 F	13.5	5,951.3	5.0	5,969.8	154.6	760.1	12.0	5,043.0	234.3	72-73

\* Cartoned grade A large eggs, New York. F = forecast

Information contact: Maxine Davis (202) 219-0767.

Table 12.—U.S. Milk Supply & Use<sup>1/</sup>

	Production	Farm use	Commercial		Imports	Total commercial supply	CCC net removals	Commercial		All milk price 1/	CCC net removals	
			Farm marketings	Beg. stock				Ending stocks	Disappearance		Skim solids basis	Total solids basis 2/
Billion pounds (milkfat basis)										\$/cwt	Billion pounds	
1985	143.0	2.6	140.8	4.8	2.8	148.2	13.3	4.5	130.4	12.76	17.2	15.6
1986	143.1	2.4	140.7	4.5	2.7	147.9	10.8	4.1	133.0	12.51	14.3	12.9
1987	142.7	2.3	140.5	4.1	2.5	147.1	8.8	4.8	135.7	12.54	9.3	8.3
1988	145.2	2.2	142.9	4.6	2.4	149.9	9.1	4.3	138.5	12.26	6.5	6.9
1989	144.2	2.1	142.2	4.3	2.5	149.0	9.4	4.1	135.4	13.58	0.4	4.0
1990	148.3	2.0	146.3	4.1	2.7	153.1	9.0	5.1	138.9	13.68	1.8	4.8
1991	148.5	2.0	146.5	5.1	2.6	154.3	10.4	4.5	139.4	12.24	3.9	6.5
1992	151.7	1.9	149.8	4.5	2.5	158.7	10.1	4.7	142.0	13.09	2.4	5.4
1993 F	151.9	1.9	150.0	4.7	2.6	157.3	7.4	4.5	145.4	12.80	4.9	5.9

1/ Delivered to plants & dealers; does not reflect deductions. 2/ Arbitrarily weighted average of milkfat basis (40 percent) & skim solids basis (60 percent). F = forecast.

Information contact: Jim Miller (202) 219-0770.

Table 13.—Poultry &amp; Eggs

	Annual			1992	1993					
	1990	1991	1992	Sept	Apr	May	June	July	Aug	Sept
<b>Broilers</b>										
Federally inspected slaughter, certified (mil. lb.)	18,555.0	19,727.7	21,052.4	1,803.5	1,867.2	1,786.8	1,979.4	1,801.8	1,904.9	1,911.0
Wholesale price, 12-city (cts./lb.)	54.8	52.0	52.6	51.3	54.7	57.9	55.0	55.4	57.8	67.6
Price of grower feed (\$/ton)	218	208	208	213	208	210	208	206	202	203
Broiler-feed price ratio 1/	3.0	3.0	3.1	3.0	3.2	3.4	3.3	3.4	3.6	3.6
Stocks beginning of period (mil. lb.)	38.3	26.1	36.1	36.0	29.0	32.6	36.3	40.7	37.1	33.3
Broiler-type chicks hatched (mil.) 2/	6,324.4	6,616.5	6,630.9	554.8	590.4	624.3	610.7	614.3	607.9	578.6
<b>Turkeys</b>										
Federally inspected slaughter, certified (mil. lb.)	4,560.7	4,851.9	4,828.9	431.3	391.9	378.7	446.7	419.3	426.9	434.2
Wholesale price, Eastern U.S., 8-16 lb. young hens (cts./lb.)	63.2	61.3	60.2	60.0	59.0	58.8	58.4	59.8	63.4	69.7
Price of turkey grower feed (\$/ton)	238	230	242	250	251	248	249	251	247	245
Turkey-feed price ratio 1/	3.2	3.3	3.1	3.0	3.0	3.1	3.0	3.1	3.2	3.3
Stocks beginning of period (mil. lb.)	235.9	306.4	264.1	684.2	359.2	424.4	474.0	556.1	625.3	678.6
Poultry placed in U.S. (mil.)	304.9	308.1	307.8	21.6	28.6	27.9	28.4	28.6	26.2	21.3
<b>Eggs</b>										
Farm production (mil.)	67,987	69,352	70,592	5,748	5,850	5,998	5,805	5,981	5,999	5,867
Average number of layers (mil.)	270	275	278	276	281	280	280	281	281	283
Rate of lay (eggs per layer on farms)	251.7	252.4	253.9	20.8	20.8	21.4	20.7	21.3	21.3	20.7
Cartoned price, New York, grade A large (cts./doz.) 3/	82.2	77.5	65.4	70.5	77.8	67.6	74.7	68.9	72.8	67.2
Price of laying feed (\$/ton)	200	192	199	202	201	200	201	202	201	200
Egg-feed price ratio 1/	7.0	6.8	6.7	5.9	6.9	6.3	6.5	5.7	6.1	5.6
<b>Stocks, first of month</b>										
Shell (mil. doz.)	0.36	0.45	0.63	0.69	0.45	0.18	0.18	0.21	0.18	0.18
Frozen (mil. doz.)	10.3	11.2	12.3	16.3	11.4	10.9	11.8	11.5	13.4	13.7
Replacement chicks hatched (mil.)	398	420	386	28.0	37.2	37.1	35.1	34.2	32.8	31.9

1/ Pounds of feed equal in value to 1 dozen eggs or 1 lb. of broiler or turkey liveweight. 2/ Placement of broiler chicks is currently reported for 45 States only; henceforth, hatch of broiler-type chicks will be used as a substitute. 3/ Price of cartoned eggs to volume buyers for delivery to retailers.

Information contact: Maxine Davis (202) 219-0767.



Table 14.—Dairy

	Annual			1992	1993					
	1990	1991	1992	Sept	Apr	May	June	July	Aug	Sept
Milk prices, Minnesota-Wisconsin, 3.5% fat (\$/cwt) 1/	12.21	11.05	11.88	12.28	12.15	12.52	12.03	11.42	11.17	11.90
Wholesale prices										
Butter, grade A Chl. (cts./lb.)	102.1	99.3	82.5	81.7	75.3	75.3	76.2	73.5	74.6	74.3
Am. cheese, Wis. assembly pt. (cts./lb.)	136.7	124.4	131.9	136.9	140.8	141.8	133.7	126.3	124.8	137.4
Nonfat dry milk (cts./lb.) 2/	100.6	94.0	107.1	105.1	113.9	115.3	112.9	109.6	109.3	109.2
USDA net removals 3/										
Total milk equiv. (mil. lb.) 4/	9,017.2	10,425.0	9,978.3	207.4	762.7	1,186.3	717.4	278.3	-69.3	-408.7
Butter (mil. lb.)	400.3	442.8	439.9	8.0	33.3	52.1	31.1	11.3	-4.6	-18.9
Am. cheese (mil. lb.)	21.5	76.9	15.7	0.4	0.1	1.2	0.9	0.9	0.7	0.7
Nonfat dry milk (mil. lb.)	117.8	269.5	142.6	4.4	28.6	21.1	18.5	25.8	31.2	26.7
Milk										
Milk prod. 21 States (mil. lb.)	125,772	125,871	128,300	10,263	10,958	11,443	11,024	10,948	10,572	10,160
Milk per cow (lb.)	14,778	14,977	15,546	1,246	1,344	1,404	1,354	1,346	1,302	1,253
Number of milk cows (1,000)	8,512	8,391	8,253	8,237	8,153	8,148	8,144	8,134	8,120	8,110
U.S. milk production (mil. lb.)	148,314	148,477	151,747	7/ 12,094	7/ 12,985	7/ 13,563	7/ 13,066	7/ 12,966	7/ 12,520	7/ 12,029
Stock, beginning										
Total (mil. lb.)	9,036	13,359	15,841	20,253	16,327	17,393	18,098	19,107	17,638	16,649
Commercial (mil. lb.)	4,120	5,146	4,461	5,182	4,597	4,563	4,927	6,346	5,375	5,275
Government (mil. lb.)	4,916	8,213	11,379	15,092	11,730	12,830	13,171	13,761	12,261	10,374
Imports, total (mil. lb.)	2,690	2,625	2,524	196	224	244	212	235	190	—
Commercial disappearance (mil. lb.)	136,922	139,343	142,143	12,112	12,323	12,094	11,985	12,730	12,716	—
Butter										
Production (mil. lb.)	1,302.2	1,336.8	1,365.2	96.6	124.2	115.1	103.9	87.2	79.3	80.4
Stocks, beginning (mil. lb.)	256.2	416.1	539.4	705.7	525.0	565.2	582.3	589.3	534.0	454.8
Commercial disappearance (mil. lb.)	915.2	903.5	943.7	90.0	90.4	58.8	80.9	72.5	83.2	—
American cheese										
Production (mil. lb.)	2,894.2	2,768.9	2,936.6	224.7	254.8	277.7	266.2	259.5	237.8	213.5
Stocks, beginning (mil. lb.)	238.2	347.4	318.7	364.8	334.8	330.1	353.0	413.6	408.9	396.7
Commercial disappearance (mil. lb.)	2,784.4	2,756.7	2,901.1	235.2	261.6	250.2	206.9	262.0	249.7	—
Other cheese										
Production (mil. lb.)	3,167.0	3,250.0	3,551.7	303.6	297.9	294.0	288.7	281.2	292.2	303.0
Stocks, beginning (mil. lb.)	93.2	110.6	97.5	123.9	133.3	131.6	131.7	131.4	126.0	122.3
Commercial disappearance (mil. lb.)	3,426.4	3,539.2	3,795.4	327.7	323.6	320.2	311.3	312.0	315.8	—
Nonfat dry milk										
Production (mil. lb.)	879.2	877.5	872.1	50.5	90.7	103.6	95.2	88.4	84.9	51.1
Stocks, beginning (mil. lb.)	49.5	161.9	214.8	138.1	78.5	87.3	113.0	143.6	130.4	133.8
Commercial disappearance (mil. lb.)	697.6	662.7	714.8	64.1	53.3	56.1	46.2	75.7	31.1	—
Frozen dessert										
Production (mil. gal.) 5/	1,174.6	1,203.1	1,196.8	100.9	105.3	110.5	124.4	124.6	117.6	100.0
	Annual			1992				1993		
	1990	1991	1992	I	II	III	IV	I P	II P	III P
Milk production (mil. lb.)	148,314	148,477	151,747	37,989	39,077	37,515	37,166	37,763	39,614	37,514
Milk per cow (lb.)	14,842	14,860	15,423	3,852	3,971	3,818	3,782	3,862	4,068	3,863
No. of milk cows (1,000)	10,127	9,992	9,839	9,863	9,841	9,826	9,827	9,777	9,739	9,710
Milk-feed price ratio 6/	1.71	1.58	1.69	1.68	1.65	1.75	1.69	1.61	1.68	1.62
Returns over concentrate costs (\$/cwt milk) 6/	10.17	8.95	9.74	9.60	9.50	10.10	9.75	9.01	9.57	9.28

1/ Manufacturing grade milk. 2/ Prices paid f.o.b. Central States production area. 3/ Includes products exported through the Dairy Export Incentive Program (DEIP). 4/ Milk equivalent, fat basis. 5/ Hard ice cream, ice milk, & hard sherbet. 6/ Based on average milk price after adjustment for price support deductions. 7/ Estimated. — = not available. P = preliminary.

Information contact: LaVerne T. Williams (202) 219-0770.

Table 15.—Wool

	Annual			1992			1993		
	1990	1991	1992	II	III	IV	I	II	III P
U.S. wool price, (cts./lb.) 1/	256	199	204	222	210	176	146	134	136
Imported wool price, (cts./lb.) 2/	287	187	210	233	203	189	150	137	128
U.S. mill consumption, scoured									
Apparel wool (1,000 lb.)	120,822	137,187	139,715	36,045	34,462	32,279	35,503	35,720	—
Carpet wool (1,000 lb.)	12,124	14,352	14,726	3,623	3,145	3,378	4,511	4,341	—

1/ Wool price delivered at U.S. mills, clean basis, Graded Territory 64's (20.60-22.04 microns) staple 2-3/4" & up. 2/ Wool price, Charleston, SC warehouse, clean basis, Australian 60/62's, type 64A (24 micron). Duty since 1982 has been 10.0 cents. — = not available. P = preliminary.

Information contact: John Lawler (202) 219-0840.

Table 16.—Meat Animals

	Annual			1992	1993					
	1990	1991	1992	Sept	Apr	May	June	July	Aug	Sept
<b>Cattle on feed (7 States)</b>										
Number on feed (1,000 head) 1/	8,378	8,992	8,397	8,988	8,701	8,339	8,343	7,823	7,853	7,754
Placed on feed (1,000 head)	21,030	19,704	20,498	2,179	1,316	1,781	1,410	1,483	1,845	2,148
Marketings (1,000 head)	19,198	19,086	18,623	1,588	1,552	1,648	1,723	1,672	1,687	1,622
Other disappearance (1,000 head)	1,218	1,233	1,199	66	126	131	107	81	77	66
<b>Beef steer-corn price ratio, Omaha 2/</b>	32.8	31.8	33.3	35.1	37.8	37.5	36.8	31.4	32.8	32.0
<b>Hog-corn price ratio, Omaha 2/</b>	23.1	21.1	19.0	20.3	20.9	21.7	23.2	20.1	21.7	21.5
<b>Market prices (\$/cwt)</b>										
<b>Slaughter cattle</b>										
Choice steers, Omaha 1,000-1,100 lb.	77.40	73.83	74.65	73.68	81.47	80.97	78.13	72.22	73.28	71.46
Choice steers, Neb. Direct, 1,100-1,300 lb.	78.66	74.28	75.36	74.44	82.25	80.39	76.70	73.80	74.59	73.11
Boning utility cows, Sioux Falls	63.60	50.31	44.84	46.43	49.15	49.00	49.44	50.28	49.61	47.97
<b>Feeder cattle</b>										
Medium no. 1, Oklahoma City 600-700 lb.	92.15	92.74	85.57	87.48	92.82	93.78	96.33	92.98	92.58	91.23
<b>Slaughter hogs</b>										
Barrows & gilts, Iowa, S. Minn.	65.32	49.89	43.05	42.88	46.09	47.69	48.98	46.71	48.83	48.80
Feeder pigs										
S. Mo. 40-60 lb. (per head)	51.46	39.84	31.71	31.18	49.35	43.88	38.65	38.69	36.13	39.78
<b>Slaughter sheep &amp; lambs</b>										
Lambs, Choice, San Angelo	55.54	53.21	81.00	53.61	71.25	62.50	57.75	57.00	58.97	68.08
Ewes, Good, San Angelo	35.21	31.88	35.39	32.39	31.95	36.29	38.00	38.17	35.39	34.94
<b>Feeder lambs</b>										
Choice, San Angelo	62.95	53.54	62.09	55.43	71.45	62.50	58.80	58.58	63.17	68.75
<b>Wholesale meat prices, Midwest</b>										
Boxed beef cut-out value	123.21	118.31	116.73	114.40	126.12	127.19	120.52	114.48	118.73	114.65
Canner & cutter cow beef	99.66	99.42	93.85	83.23	95.55	96.38	98.66	101.69	98.50	94.72
Pork loins, 14-18 lb. 3/	117.82	108.39	101.41	102.98	107.61	111.18	122.28	113.40	116.73	118.74
Pork bellies, 12-14 lb.	53.80	47.79	30.39	29.09	41.19	39.86	36.24	44.51	48.88	43.82
Hams, skinned, 17-20 lb.	84.87	75.68	87.42	73.70	63.81	63.09	63.59	64.84	66.96	75.08
<b>All fresh beef retail price 4/</b>	262.48	271.05	268.87	266.37	275.96	276.90	274.03	274.99	273.00	270.84
<b>Commercial slaughter (1,000 head) 5/</b>										
<b>Cattle</b>										
Steers	33,241	32,690	32,873	2,811	2,681	2,775	3,013	2,864	2,941	2,870
Heifers	16,587	16,728	17,135	1,459	1,409	1,504	1,811	1,494	1,564	1,477
Cows	10,090	9,725	9,236	808	721	766	868	844	820	816
Bulls & stags	5,820	5,623	5,848	483	499	452	473	468	495	517
Calves	644	614	653	61	52	53	61	58	62	60
Sheep & lambs	1,789	1,436	1,371	110	98	85	94	83	98	97
Hogs	5,654	5,722	5,493	490	482	411	478	409	432	426
<b>Commercial production (mil. lb.)</b>										
Beef	22,634	22,800	22,968	1,996	1,782	1,857	2,051	1,963	2,065	2,027
Veal	318	296	299	23	22	20	22	22	23	22
Lamb & mutton	358	358	343	30	30	27	31	26	27	27
Pork	15,300	15,948	17,185	1,511	1,465	1,309	1,377	1,311	1,389	1,438

	Annual			1992			1993			
	1990	1991	1992	II	III	IV	I	II	III	IV
<b>Cattle on feed (13 States)</b>										
Number on feed (1,000 head) 1/	9,943	10,827	10,135	9,693	8,847	8,920	10,884	10,452	9,493	9,891
Placed on feed (1,000 head)	24,803	23,208	24,246	5,273	6,107	7,458	5,321	5,284	6,301	—
Marketings (1,000 head)	22,526	22,383	22,061	5,675	5,766	5,179	5,314	5,783	5,950	—
Other disappearance (1,000 head)	1,393	1,517	1,436	444	268	320	439	460	—	—
<b>Hogs &amp; pigs (10 States) 6/</b>										
Inventory (1,000 head) 1/	42,200	42,900	45,735	44,800	47,255	49,175	47,140	45,580	46,420	48,920
Breeding (1,000 head) 1/	5,275	5,257	5,610	5,555	5,845	5,840	5,735	5,520	5,630	5,560
Market (1,000 head) 1/	36,925	37,643	40,125	39,245	41,410	43,335	41,405	40,060	40,790	41,360
Farrowings (1,000 head)	8,960	9,516	10,202	2,663	2,501	2,398	2,210	2,471	2,302	2,331
Pig crop (1,000 head)	70,589	75,330	82,497	21,570	20,395	19,351	18,093	20,065	18,610	—

1/ Beginning of period. 2/ Bushels of corn equal in value to 100 pounds live weight. 3/ Prior to 1984, 8-14 lb.; 1984 & 1985, 14-17 lb.; beginning 1986, 14-18 lb. 4/ New series estimating the composite price of all beef grades & ground beef sold by retail stores. This new series is in addition to, but does not replace, the series for the retail price of Choice beef that appears in table 8. 5/ Classes estimated. 6/ Quarters are Dec. of preceding year-Feb. (I), Mar.-May (II), June-Aug. (III), & Sept.-Nov. (IV). May not add to NASS totals due to rounding. — = not available. \* Intentions.

Information contact: Polly Cochran (202) 219-0767.



## Crops &amp; Products

Table 17.—Supply & Utilization<sup>1,2</sup>

	Area				Production	Total supply <sup>4/</sup>	Feed and residual	Other domestic use	Exports	Total use	Ending stocks	Farm Price <sup>5/</sup>
	Set aside <sup>3/</sup>	Planted	Harvested	Yield								
	Mil. acres		Bu./acre									\$/bu.
<b>Wheat</b>												
1988/89	22.5	65.5	53.2	34.1	1,812	3,096	150	829	1,415	2,394	702	3.72
1989/90	9.0	70.6	62.2	32.7	2,037	2,782	144	849	1,232	2,225	636	3.72
1990/91	7.5	77.2	69.3	39.5	2,736	3,309	499	875	1,088	2,443	866	2.81
1991/92*	15.9	69.9	57.7	34.3	1,981	2,888	254	883	1,280	2,410	472	3.00
1992/93*	7.3	72.3	62.4	39.4	2,459	3,001	196	922	1,354	2,472	529	3.24
1993/94*	5.0	72.1	63.0	38.4	2,422	3,036	300	929	1,125	2,354	682	2.85-3.10
<b>Rice</b>												
	Mil. acres		Lb./acre					Mil. cwt (rough equiv.)				\$/cwt
1988/89	1.09	2.93	2.90	5,514	159.9	195.1	—	8/ 62.5	85.9	168.4	28.7	6.83
1989/90	1.18	2.73	2.69	5,740	154.5	185.8	—	8/ 62.1	77.2	159.3	20.4	7.35
1990/91	1.02	2.90	2.82	5,529	156.1	187.2	—	8/ 91.7	70.9	162.7	24.6	8.70
1991/92*	0.9	2.88	2.78	5,674	157.5	187.3	—	8/ 93.7	68.4	159.9	27.4	7.59
1992/93*	0.4	3.17	3.13	5,722	179.1	212.8	—	8/ 96.1	77.0	173.2	39.4	5.90
1993/94*	0.6	3.02	2.94	5,611	162.0	208.2	—	8/ 99.5	85.0	184.5	23.7	8.00-9.50
<b>Corn</b>												
	Mil. acres		Bu./acre					Mil. bu.				\$/bu.
1988/89	20.5	67.7	58.3	84.8	4,029	9,191	3,941	1,293	2,026	7,260	1,930	2.54
1989/90	10.8	72.2	64.7	116.3	7,525	9,458	4,389	1,358	2,368	8,113	1,344	2.38
1990/91	10.7	74.2	67.0	118.5	7,934	9,282	4,663	1,373	1,725	7,761	1,521	2.28
1991/92*	7.4	78.0	68.8	108.8	7,476	9,016	4,878	1,454	1,684	7,918	1,100	2.37
1992/93*	5.3	79.3	72.1	131.4	9,479	10,585	5,288	1,510	1,675	8,473	2,113	2.07
1993/94*	9.0	73.7	63.1	103.1	8,503	8,831	4,850	1,550	1,350	7,750	881	2.35-2.75
<b>Sorghum</b>												
	Mil. acres		Bu./acre					Mil. bu.				\$/bu.
1988/89	3.9	10.3	9.0	63.8	577	1,239	486	22	311	800	440	2.27
1989/90	3.3	12.6	11.1	55.4	615	1,055	517	15	303	835	220	2.10
1990/91	3.3	10.5	9.1	63.1	573	793	410	9	232	651	143	2.12
1991/92*	2.5	11.1	9.9	59.3	585	727	374	9	292	674	63	2.25
1992/93*	2.0	13.3	12.2	72.8	884	937	480	8	275	762	175	1.89
1993/94*	2.0	10.7	9.7	63.6	620	795	460	8	250	718	78	2.15-2.55
<b>Barley</b>												
	Mil. acres		Bu./acre					Mil. bu.				\$/bu.
1988/89	2.8	9.8	7.6	38.0	290	622	171	175	79	425	198	2.80
1989/90	2.3	9.1	8.3	48.8	404	614	183	175	84	453	161	2.42
1990/91	2.9	8.2	7.5	58.1	422	596	205	178	81	461	135	2.14
1991/92*	2.2	8.9	8.4	55.2	464	624	230	171	94	496	129	2.10
1992/93*	2.3	7.8	7.3	62.5	458	588	200	167	80	447	151	2.05
1993/94*	2.2	7.9	7.1	58.9	416	592	225	165	85	475	117	1.95-2.15
<b>Oats</b>												
	Mil. acres		Bu./acre					Mil. bu.				\$/bu.
1988/89	0.3	13.9	5.5	39.3	218	392	194	100	1	294	98	2.61
1989/90	0.4	12.1	6.9	54.3	374	538	268	115	1	381	157	1.49
1990/91	0.2	10.4	5.9	60.1	358	578	288	120	1	407	171	1.14
1991/92*	0.6	8.7	4.8	50.7	243	489	235	125	2	362	128	1.20
1992/93*	0.7	8.0	4.5	65.6	295	477	233	125	8	364	113	1.32
1993/94*	0.8	7.9	3.8	54.6	208	401	180	125	5	310	91	1.35-1.45
<b>Soybeans</b>												
	Mil. acres		Bu./acre					Mil. bu.				\$/bu.
1988/89	0	58.8	57.4	27.0	1,549	1,855	7/ 88	1,058	527	1,873	182	7.42
1989/90	0	60.8	59.5	32.3	1,924	2,109	7/ 101	1,146	623	1,870	239	5.69
1990/91	0	57.9	56.5	34.1	1,926	2,168	7/ 95	1,187	557	1,839	329	5.74
1991/92*	0	69.2	58.0	34.2	1,987	2,319	7/ 103	1,254	684	2,041	278	5.58
1992/93*	0	59.3	58.2	37.5	2,188	2,468	7/ 122	1,279	770	2,178	292	5.60
1993/94*	0	59.5	56.0	32.7	1,834	2,131	7/ 111	1,225	625	1,961	170	6.00-7.00
<b>Soybean oil</b>												
								Mil. lbs.				¢/cwt./lb.
1988/89	—	—	—	—	11,737	13,967	—	10,591	1,681	12,252	1,715	21.10
1989/90	—	—	—	—	13,004	14,741	—	12,083	1,353	13,436	1,305	22.30
1990/91	—	—	—	—	13,408	14,730	—	12,164	780	12,944	1,786	21.00
1991/92*	—	—	—	—	14,345	16,132	—	12,245	1,648	13,893	2,239	19.10
1992/93*	—	—	—	—	13,779	16,020	—	12,949	1,500	14,449	1,571	21.40
1993/94*	—	—	—	—	13,720	15,325	—	12,850	1,350	14,200	1,125	23.0-28.5
<b>Soybean meal</b>												
								1,000 tons				¢/\$/ton
1988/89	—	—	—	—	24,943	25,100	—	19,857	5,270	24,927	173	252.4
1989/90	—	—	—	—	27,719	27,900	—	22,263	5,319	27,582	318	186.5
1990/91	—	—	—	—	28,325	28,688	—	22,934	5,469	28,403	285	181.4
1991/92*	—	—	—	—	29,831	30,183	—	23,008	6,945	29,953	230	189.2
1992/93*	—	—	—	—	30,364	30,689	—	24,160	6,325	30,485	204	194.0
1993/94*	—	—	—	—	28,996	29,325	—	24,000	6,100	27,100	225	190-225

See footnotes at end of table.

Table 17.—Supply &amp; Utilization, continued

	Area			Yield	Production	Total supply 4/	Feed and residual	Other domestic use	Exports	Total use	Ending Stocks	Farm price 5/
	Set Aside 3/	Planted	Harvested									
	Mil. acres		Lb./acre				Mil. bales				Cts./lb.	
Cotton 10/												
1988/89	2.2	12.5	11.9	619	15.4	21.2	—	7.8	6.1	13.9	7.1	56.60
1989/90	3.5	10.6	9.5	614	12.2	19.3	—	8.8	7.7	16.5	3.0	66.20
1990/91	2.0	12.3	11.7	634	15.5	18.5	—	8.7	7.8	18.5	2.3	67.10
1991/92	1.2	14.1	13.0	652	17.6	20.0	—	9.6	6.7	18.3	3.7	68.10
1992/93	1.7	13.2	11.1	699	16.2	19.9	—	10.3	5.2	15.5	4.7 11/	54.60
1993/94	1.4	13.7	13.2	594	16.3	21.0	—	10.3	5.9	16.2	4.9 12/	

\* November 9, 1993 Supply & Demand Estimates. 1/ Marketing year beginning June 1 for wheat, barley, & oats, August 1 for cotton & rice, September 1 for soybeans, corn, & sorghum, October 1 for soybean meal & soybean oil. 2/ Conversion factors: Hectare (ha.) = 2.471 acres. 1 metric ton = 2204.622 pounds. 3/ 7437 bushels of wheat or soybeans, 39,3679 bushels of corn or sorghum, 45,8296 bushels of barley, 88,8944 bushels of oats, 22,046 cwt of rice, & 4,594,800-pound bales of cotton. 4/ Includes diversion, acreage reduction, 50-92, & 0-92 programs. 5/ 92 & 50/92 set-aside includes idled acreage & acreage planted to minor oilseeds, sesame, and crambe. 6/ Includes imports. 7/ Marketing-year weighted average price received by farmers. Does not include an allowance for loans outstanding & Government purchases. 8/ Residual included in domestic use. 9/ Includes seed. 10/ Simple average of crude soybean oil, Decatur. 11/ Simple average of 48 percent, Decatur. 12/ Upland & extra long staple. Stocks estimates based on Census Bureau data, resulting in an unaccounted difference between supply & use estimates & changes in ending stocks. 11/ Weighted average for August 1-April 1; not a projection for the marketing year. 12/ USDA is prohibited from publishing cotton price projections. — = not available or not applicable.

Note: Set-aside data for 1993 are from June 15 signup report.

Information contact: Commodity Economics Division, Crops Branch (202) 219-0840.

Table 18.—Cash Prices, Selected U.S. Commodities

	Marketing year 1/				1992	1993				
	1988/89	1989/90	1990/91	1991/92		Sept	May	June	July	Aug
Wheat, No. 1 HRW, Kansas City (\$/bu.) 2/	4.17	4.22	2.94	3.77	3.56	3.51	3.33	3.38	3.34	3.37
Wheat DNS, Minneapolis (\$/bu.) 3/	4.36	4.18	3.06	3.82	3.79	3.71	3.96	4.60	4.88	4.90
Rice, S W La. (\$/cwt) 4/	14.85	15.55	15.25	16.48	16.15	11.90	11.75	12.38	12.38	12.75
Corn, no. 2 yellow, 30 day, Chicago (\$/bu.)	2.88	2.54	2.41	2.52	2.17	2.29	2.20	2.38	2.37	2.34
Sorghum, no. 2 yellow, Kansas City (\$/cwt)	4.17	4.21	4.08	4.36	3.78	3.82	3.58	3.99	4.01	3.89
Barley, feed, Duluth (\$/bu.) 5/	2.32	2.20	2.13	2.17	2.12	2.05	1.99	1.96	1.89	1.89
Barley, malting, Minneapolis (\$/bu.)	4.11	3.28	2.42	2.38	2.30	2.34	2.30	2.27	2.27	2.18
U.S. price, SLM, 1-1/16 in. (cts./lb.) 6/	67.7	69.8	74.8	56.7	53.5	58.4	54.4	54.4	53.0	64.0
Northern Europe prices index (cts./lb.) 7/	66.4	82.3	82.9	62.9	56.3	60.0	58.6	58.0	55.5	55.1
U.S. M 1-3/32 in. (cts./lb.) 8/	69.2	83.6	86.2	66.3	60.3	65.1	63.0	62.9	57.3	57.0
Soybeans, no. 1 yellow, 30 day, Chicago (\$/bu.)	7.41	5.86	5.76	5.75	5.42	5.99	5.99	6.99	6.66	6.32
Soybean oil, crude, Decatur (cts./lb.)	21.10	22.30	21.00	19.10	18.09	20.15	21.30	23.96	23.33	23.51
Soybean meal, 48% protein, Decatur (\$/ton) 9/	252.40	186.50	181.40	189.20	187.00	187.40	223.00	229.90	219.10	199.9

1/ Beginning June 1 for wheat & barley; Aug. 1 for rice & cotton; Sept. 1 for corn, sorghum & soybeans; Oct. 1 for soybean meal & oil. 2/ Ordinary protein. 3/ 14% protein. 4/ Long grain, milled basis. 5/ Beginning Mar. 1987 reporting point changed from Minneapolis to Duluth. 6/ Average spot market. 7/ Liverpool Cotton "A" Index; average of five lowest prices of 13 selected growths. 8/ Memphis territory growths. 9/ Note change to 48% protein.

Information contacts: Wheat, rice, & feed grains, Jenny Gonzales (202) 219-0840; Cotton, Lee Meyer (202) 219-0840; Soybeans, Mark Ash (202) 219-0840.



Table 19.—Farm Programs, Price Supports, Participation &amp; Payment Rates

	Target price	Basic loan rate	Findley or announced loan rate 1/	Payment rates		Effective base acres 2/	Program 3/	Participation rate 4/	
				Paid land diversion					
				Total deficiency	Mandatory				Optional
				\$/bu.					
<b>Wheat</b>									
1988/89	4.23	2.76	2.21	0.69	-----	84.8	27.5/0/0	86	
1989/90	4.10	2.58	2.08	0.32	-----	82.3	10/0/0	78	
1990/91 5/	4.00	2.44	1.95	1.28	-----	80.5	5/0/0	83	
1991/92	4.00	2.52	2.04	1.35	-----	79.2	15/0/0	85	
1992/93	4.00	2.58	2.21	0.81	-----	78.9	5/0/0	83	
1993/94	4.00	2.88	2.45	1.05	-----	78.5	0/0/0	87	
1994/95	-----	-----	-----	-----	-----	-----	0/0/0	-----	
<b>Rice</b>									
1988/89	11.15	6.83	7/ 6.50	4.31	-----	4.2	25/0/0	94	
1989/90	10.80	6.50	7/ 6.00	3.56	-----	4.2	25/0/0	94	
1990/91 5/	10.71	6.50	7/ 5.40	4.16	-----	4.2	20/0/0	95	
1991/92	10.71	6.50	7/ 5.85	3.07	-----	4.2	5/0/0	95	
1992/93	10.71	6.50	-----	4.21	-----	4.1	0/0/0	96	
1993/94	10.71	6.50	-----	4.21	-----	4.1	5/0/0	96	
1994/95	-----	-----	-----	-----	-----	-----	-----	-----	
<b>Corn</b>									
1988/89	2.83	2.21	1.77	0.36	-----	82.9	20/0/10	87	
1989/90	2.84	2.06	1.65	0.58	-----	82.7	10/0/0	79	
1990/91 5/	2.75	1.98	1.57	0.51	-----	82.6	10/0/0	78	
1991/92	2.75	1.89	1.62	0.41	-----	82.7	7 5/0/0	77	
1992/93	2.75	2.01	1.72	0.73	-----	82.1	5/0/0	76	
1993/94	2.75	1.99	1.72	0.72	-----	81.9	10/0/0	81	
1994/95	-----	-----	-----	-----	-----	-----	0/0/0	-----	
<b>Sorghum</b>									
1988/89	2.78	2.10	1.68	0.48	-----	16.8	20/0/10	82	
1989/90	2.70	1.98	1.57	0.66	-----	16.2	10/0/0	71	
1990/91 5/	2.61	1.86	1.49	0.58	-----	15.4	10/0/0	70	
1991/92	2.61	1.80	1.54	0.37	-----	13.5	7 5/0/0	77	
1992/93	2.61	1.91	1.63	0.70	-----	13.6	5/0/0	79	
1993/94	2.61	1.89	1.63	0.70	-----	13.5	5/0/0	81	
1994/95	-----	-----	-----	-----	-----	-----	0/0/0	-----	
<b>Barley</b>									
1988/89	2.51	1.80	1.44	0.00	-----	12.5	20/0/10	79	
1989/90	2.44	1.68	1.34	0.00	-----	12.3	10/0/0	67	
1990/91 5/	2.36	1.60	1.28	0.20	-----	11.9	10/0/0	68	
1991/92	2.36	1.54	1.32	0.62	-----	11.5	7 5/0/0	76	
1992/93	2.36	1.64	1.40	0.56	-----	11.1	5/0/0	75	
1993/94	2.36	1.62	1.40	0.52	-----	10.8	0/0/0	82	
1994/95	-----	-----	-----	-----	-----	-----	0/0/0	-----	
<b>Oats</b>									
1988/89	1.55	1.14	0.91	0.00	-----	7.9	5/0/0	30	
1989/90	1.50	1.06	0.85	0.00	-----	7.8	5/0/0	18	
1990/91 5/	1.45	1.01	0.81	0.32	-----	7.5	5/0/0	09	
1991/92	1.45	0.97	0.83	0.35	-----	7.3	0/0/0	38	
1992/93	1.45	1.03	0.88	0.17	-----	7.2	0/0/0	40	
1993/94	1.45	1.02	0.88	0.15	-----	7.1	0/0/0	46	
1994/95	-----	-----	-----	-----	-----	-----	0/0/0	-----	
<b>Soybeans 9/</b>									
1988/89	-----	-----	4.77	-----	-----	-----	-----	-----	
1989/90	-----	-----	4.53	-----	-----	-----	-----	-----	
1990/91 5/	-----	-----	4.50	-----	-----	-----	-----	-----	
1991/92	-----	-----	5.02	-----	-----	-----	-----	-----	
1992/93	-----	-----	5.02	-----	-----	-----	-----	-----	
1993/94	-----	-----	5.02	-----	-----	-----	-----	-----	
1994/95	-----	-----	4.92	-----	-----	-----	-----	-----	
<b>Upland cotton</b>									
1988/89	75.9	51.80	11/ 51.80	19.4	-----	14.5	12 5/0/0	89	
1989/90	73.4	50.00	11/ 50.00	13.1	-----	14.6	25/0/0	89	
1990/91 5/	72.9	50.27	11/ 50.27	7.3	-----	14.4	12 5/0/0	86	
1991/92 12/	72.9	50.77	11/ 47.23	10.1	-----	14.6	5/0/0	84	
1992/93	72.9	52.35	11/ -----	20.3	-----	14.9	10/0/0	89	
1993/94	72.9	52.35	11/ -----	20.55	-----	15.1	7 5/0/0	90	
1994/95	72.9	50.00	11/ -----	-----	-----	-----	17 5/0/0	-----	

1/ There are no Findley loan rates for rice or cotton. See footnotes 7/ & 11/. 2/ National effective crop acreage base as determined by ASCS. Net of CRP.

3/ Program requirements for participating producers (mandatory acreage reduction program/mandatory paid land diversion/optional paid land diversion). Acreage idled must be devoted to a conserving use to receive program benefits. 4/ Percentage of effective base acres enrolled in acreage reduction programs. 5/ Payments & loans were reduced by 1.4 percent in 1990/91 due to Gramm-Rudman-Hollings. Budget Reconciliation Act reductions to deficiency payments rates were also in effect in that year. Data do not include these reductions. 6/ Under 1990 modified contracts, participating producers plant up to 105 percent of their wheat base acres. For every acre planted above 95 percent of base, the acreage used to compute deficiency payments was cut by 1 acre. 7/ A marketing loan has been in effect for rice since 1985/86. Loans may be repaid at the lower of: a) the loan rate or b) the adjusted world market price (announced weekly). However, loans cannot be repaid at less than a specified fraction of the loan rate. Data refer to market-year average loan repayment rates. 8/ The sorghum, oats, & barley programs are the same as for corn except as indicated. 9/ There are no large prices, base acres, acreage reduction programs, or deficiency payment rates for soybeans. 10/ Nominal percentage of program crop base acres permitted to shift into soybeans without loss of base. 11/ A marketing loan has been in effect for cotton since 1986/87. In 1987/88 & after, loans may be repaid at the lower of: a) the loan rate or b) the adjusted world market price (announced weekly; Plan B). Starting in 1991/92, loans cannot be repaid at less than 70 percent of the loan rate. Data refer to annual average loan repayment rates. 12/ A marketing certificate program was implemented on Aug. 1, 1991. --- = not available.

\* For wheat, the 1991/92 rate is the total deficiency payment rate for the "regular" program. For the winter wheat option, the rate is \$1.25.

\*\* For wheat, corn, sorghum, barley, and oats, regular deficiency payment rate based on the 5-month price. For rice and upland cotton, total deficiency payment rate.

\*\*\* Estimated total deficiency payment rate. Minimum guaranteed payment rate for 0/92 (wheat & feed grains) & 50/92 (rice and upland cotton) programs. Sign-up for 1993 programs was March 1-April 30, 1993.

Note: 1993 effective base acres and participation rates are from June 15 sign-up report.

Information contact: Commodity Economics Division, Crops Branch (202) 219-0840.

Table 20.—Fruit

	1984	1985	1986	1987	1988	1989	1990	1991	1992 P
Citrus 1/									
Production (1,000 ton)	10,832	10,525	11,058	11,993	12,761	13,186	10,860	11,285	12,459
Per capita consumpt. (lbs.) 2/	22.5	21.5	24.2	23.9	25.4	23.5	21.4	19.1	24.3
Noncitrus 3/									
Production (1,000 tons)	14,301	14,191	13,874	16,011	15,893	16,365	15,657	15,750	17,142
Per capita consumpt. (lbs.) 2/	66.2	65.1	68.7	73.4	71.7	73.0	70.8	70.8	74.4
	1993								
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
F.o.b. shipping point prices									
Apples (\$/carton) 4/	14.50	12.33	10.66	11.33	11.50	11.50	11.50	12.78	13.34
Pears (\$/box) 5/	16.00	16.00	16.00	16.08	18.28	18.28	—	—	—
Grower prices									
Oranges (\$/box) 6/	2.56	2.51	2.70	3.32	3.58	3.90	4.73	5.44	10.52
Grapefruit (\$/box) 6/	3.11	2.56	1.59	1.94	1.44	1.45	3.53	2.44	3.51
Stocks, ending									
Fresh apples (mil. lbs.)	3,433.1	2,769.3	2,011.1	1,341.5	895.1	488.9	201.2	28.4	3,248.8
Fresh pears (mil. lbs.)	174.2	128.1	81.7	50.8	23.3	1.8	7.1	146.5	834.8
Frozen fruits (mil. lbs.)	823.3	842.1	744.8	690.3	661.6	710.3	831.3	939.8	1,000.8
Frozen orange juice (mil. lbs.)	1,135.9	1,289.4	1,283.7	1,440.9	1,482.3	1,351.8	1,147.0	1,029.6	857.8

1/ 1992 indicated 1991/92 season. 2/ Fresh per capita consumption. 3/ Calendar year. 4/ Red delicious, Washington, extra fancy, carton tray pack, 125's. 5/ D'Anjou, Washington, standard box wrapped, U.S. no. 1, 135's. 6/ U.S. equivalent on-tree returns. P = preliminary. — = not available.

Information contact: Wynne Napper (202) 219-0884.

Table 21.—Vegetables

	Calendar year									
	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992 P
Production										
Total vegetables (1,000 cwt)	403,509	456,334	453,030	448,629	478,381	488,779	542,437	581,704	564,582	534,951
Fresh (1,000 cwt) 1/ 3/	185,782	201,817	203,549	203,185	220,539	228,397	239,281	239,104	229,506	236,140
Processed (tons) 2/ 3/	10,888,350	12,725,880	12,474,040	12,273,200	12,892,100	12,019,110	15,157,790	18,130,020	16,753,820	14,940,560
Mushrooms (1,000 lbs.) 4/	561,531	595,681	587,956	614,393	631,819	667,759	714,992	749,151	748,832	776,357
Potatoes (1,000 cwt)	333,728	362,039	406,609	361,743	389,320	356,438	370,444	402,110	417,622	425,387
Sweetpotatoes (1,000 cwt)	12,083	12,902	14,573	12,368	11,611	10,945	11,356	12,594	11,203	11,780
Dry edible beans (1,000 cwt)	15,520	21,070	22,298	22,960	26,031	19,253	23,729	32,379	33,765	22,047
	1992									1993
	July	Aug	Sept	Mar	Apr	May	Jun	July	Aug	Sept
Shipments (1,000 cwt)										
Fresh	22,410	17,640	15,788	24,089	18,956	25,574	36,353	19,416	18,292	18,424
Iceberg lettuce	4,850	4,613	4,393	5,054	3,570	5,031	5,316	3,715	3,971	4,971
Tomatoes, all	2,957	2,574	2,108	3,885	2,855	2,540	4,229	2,742	2,183	2,944
Dry-bulb onions	2,848	2,560	3,482	3,390	2,448	2,989	3,720	2,877	2,793	3,639
Other 5/	11,955	7,893	5,805	11,770	10,073	15,014	23,088	10,682	7,345	6,870
Potatoes, all	9,851	9,827	11,132	18,545	18,489	17,946	14,284	9,393	8,822	13,504
Sweetpotatoes	154	138	278	468	334	216	244	178	154	343

1/ Includes fresh production of asparagus, broccoli, carrots, cauliflower, celery, sweet corn, lettuce, honeydews, onions, & tomatoes. 2/ Includes processing production of snap beans, sweet corn, green peas, tomatoes, cucumbers (for pickles), asparagus, broccoli, carrots, & cauliflower. 3/ Asparagus & cucumber estimates were not available for 1982 & 1983. 4/ Fresh & processing agaricus mushrooms only. Excludes specialty varieties. Crop year July 1 - June 30. 5/ Includes snap beans, broccoli, cabbage, carrots, cauliflower, celery, sweet corn, cucumbers, eggplant, bell peppers, squash, cantaloupes, honeydews, & watermelons. P = preliminary.

Information contacts: Gary Lucier or John Love (202) 219-0884.

Table 22.—Other Commodities

	Annual					1992			1993	
	1988	1989	1990	1991	1992	Apr-June	July-Sept	Oct-Dec	Jan-Mar	Apr-June
Sugar										
Production 1/	7,087	6,841	5,334	7,133	7,501	718	722	3,929	2,351	825
Deliveries 1/	8,188	8,340	8,661	8,704	8,920	2,208	2,409	2,312	2,067	2,201
Stocks, ending 1/	3,132	2,947	2,729	3,039	3,220	2,757	1,451	3,225	3,904	3,014
Coffee										
Composite green price N.Y. (cts/lb.)	119.59	95.17	76.93	70.09	55.30	51.72	48.36	61.94	60.48	55.07
Imports, green bean equiv. (mil. lbs.) 2/	2,072	2,685	2,715	2,553	2,989	720	704	705	757	598
	Annual					1993				
	1990	1991	1992	July	Feb	Mar	Apr	May	June	July
Tobacco										
Prices at auctions 3/										
Flue-cured (\$/lb.)	167.3	172.3	—	—	—	—	—	—	—	158.0
Burley (\$/lb.)	175.3	178.8	—	—	178.0	173.0	—	—	—	—
Domestic consumption 4/										
Cigarettes (bil.)	523.1	518.3	509.5	38.3	39.2	51.4	37.8	39.4	41.0	37.5
Large cigars (mil.)	2,343.5	2,231.9	2,217.1	167.7	141.1	178.8	159.0	175.2	227.7	154.5

1/ 1,000 short tons, raw value. Quarterly data shown at end of each quarter. 2/ Net imports of green & processed coffee. 3/ Crop year July-June for flue-cured, Oct.-Sept. for burley. 4/ Taxable removals. — = not available.

Information contacts: Sugar, Peter Buzzanell (202) 219-0886. Coffee, Fred Gray (202) 219-0888. Tobacco, Verner Grise (202) 219-0890.



## World Agriculture

Table 23.—World Supply &amp; Utilization of Major Crops, Livestock &amp; Products

	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92 P	1992/93 F
Million units							
<b>Wheat</b>							
Area (hectares)	227.9	219.7	217.4	225.8	231.4	222.3	222.4
Production (metric tons)	524.1	496.0	495.0	533.0	588.1	542.3	560.6
Exports (metric tons) 1/	90.7	112.1	102.9	102.0	101.6	108.9	109.4
Consumption (metric tons) 2/	515.7	525.0	524.9	532.2	563.7	559.0	548.0
Ending stocks (metric tons) 3/	179.1	150.1	120.2	121.0	145.4	128.7	141.3
<b>Coarse grains</b>							
Area (hectares)	336.0	323.3	323.2	320.8	314.2	318.0	317.7
Production (metric tons)	822.4	784.2	721.1	790.9	820.9	803.5	856.9
Exports (metric tons) 1/	82.9	88.3	95.2	103.8	88.1	93.5	88.1
Consumption (metric tons) 2/	796.5	807.2	785.0	814.1	808.7	809.5	833.4
Ending stocks (metric tons) 3/	235.2	215.0	151.0	127.9	140.2	134.2	157.8
<b>Rice, milled</b>							
Area (hectares)	145.1	141.7	145.5	146.6	146.7	145.7	145.1
Production (metric tons)	316.7	314.5	330.1	343.1	350.7	348.3	351.1
Exports (metric tons) 4/	12.9	11.2	13.9	11.7	12.0	14.0	13.9
Consumption (metric tons) 2/	320.8	319.9	327.7	336.4	345.8	352.9	354.3
Ending stocks (metric tons) 3/	50.9	45.5	47.8	54.5	59.4	54.8	51.6
<b>Total grains</b>							
Area (hectares)	709.0	684.7	686.1	693.2	692.3	686.0	685.2
Production (metric tons)	1,663.2	1,594.7	1,546.2	1,867.0	1,759.7	1,694.1	1,768.6
Exports (metric tons) 1/	186.5	211.6	212.0	217.5	201.7	216.4	211.4
Consumption (metric tons) 2/	1,633.0	1,652.1	1,637.6	1,682.7	1,718.2	1,721.4	1,735.7
Ending stocks (metric tons) 3/	465.2	410.6	319.0	303.4	345.0	317.7	350.7
<b>Oilseeds</b>							
Crush (metric tons)	161.8	168.4	164.5	171.8	177.2	185.0	184.7
Production (metric tons)	194.9	210.5	201.6	212.5	215.9	223.5	228.6
Exports (metric tons)	37.7	39.5	31.5	35.8	33.0	37.5	37.8
Ending stocks (metric tons) 3/	23.3	24.0	22.1	23.7	23.4	21.7	23.5
<b>Meals</b>							
Production (metric tons)	110.7	115.4	111.1	117.0	119.7	125.0	125.4
Exports (metric tons)	36.7	35.8	37.4	39.9	40.7	43.2	41.9
<b>Oils</b>							
Production (metric tons)	50.4	53.3	53.3	57.1	58.2	60.4	60.9
Exports (metric tons)	16.9	17.5	18.1	20.4	20.6	20.8	20.4
<b>Cotton</b>							
Area (hectares)	29.2	30.8	33.7	31.5	33.1	34.7	32.7
Production (bales)	70.6	81.1	84.4	79.8	87.0	96.0	82.5
Exports (bales)	33.4	29.9	33.1	31.3	29.8	28.3	24.8
Consumption (bales)	82.8	84.2	85.3	86.6	85.5	84.4	86.0
Ending stocks (bales)	35.7	32.8	31.8	26.2	28.5	40.6	38.5
	1987	1988	1989	1990	1991	1992	1993 F
<b>Red meat</b>							
Production (metric tons)	112.8	114.2	116.3	117.7	118.1	118.9	120.8
Consumption (metric tons)	110.8	112.8	114.2	115.8	116.5	117.5	119.5
Exports (metric tons) 1/	6.9	7.0	7.1	7.4	7.0	6.6	6.9
<b>Poultry 5/</b>							
Production (metric tons)	32.0	33.1	35.0	36.8	39	40.5	42.0
Consumption (metric tons)	31.4	32.6	34.3	36.2	38.5	39.9	41.4
Exports (metric tons) 1/	1.7	1.7	1.9	2.2	2.3	2.6	2.8
<b>Dairy</b>							
Milk production (metric tons)	425.7	428.9	434.7	442.0	429.4	415.0	408.2

1/ Excludes intra-EC trade. 2/ Where stocks data not available (excluding USSR), consumption includes stock changes. 3/ Stocks data are based on differing marketing years & do not represent levels at a given date. Data not available for all countries; includes estimated change in USSR grain stocks but not absolute level. 4/ Calendar year data. 1987 data correspond with 1986/87, etc. 5/ Poultry excludes the Peoples Republic of China before 1986. P = preliminary. F = forecast

Information contacts: Crops, Carol Whitton (202) 219-0824; red meat & poultry, Linda Bailey (202) 219-1285; dairy, Sara Short (202) 219-0770.

## U.S. Agricultural Trade

**Table 24.—Prices of Principal U.S. Agricultural Trade Products**

	Annual			1992	1993					
	1990	1991	1992	Sept	Apr	May	June	July	Aug	Sept
<b>Export commodities</b>										
Wheat, f.o.b. vessel, Gulf ports (\$/bu.)	3.72	3.52	4.13	3.79	3.87	3.70	3.31	3.50	3.56	3.58
Corn, f.o.b. vessel, Gulf ports (\$/bu.)	2.79	2.75	2.86	2.50	2.57	2.51	2.37	2.64	2.61	2.59
Grain sorghum, f.o.b. vessel, Gulf ports (\$/bu.)	2.65	2.69	2.63	2.41	2.44	2.42	2.30	2.60	2.58	2.52
Soybeans, f.o.b. vessel, Gulf ports (\$/bu.)	6.24	6.05	6.01	5.82	6.18	6.28	6.27	7.32	7.01	6.89
Soybean oil, Decatur (cts./lb.)	22.75	20.14	19.16	18.10	21.29	21.26	21.21	23.96	23.34	23.51
Soybean meal, Decatur (\$/ton)	189.37	172.90	177.79	174.33	187.42	193.74	193.41	229.44	219.06	202.13
Cotton, 7-market avg. spot (cts./lb.)	71.25	69.69	63.90	53.49	56.16	56.38	54.38	54.35	53.04	54.01
Tobacco, avg. price at auction (cts./lb.)	169.61	179.23	172.58	182.51	157.44	157.44	157.44	158.01	159.51	173.08
Rice, f.o.b. mill, Houston (\$/cwt)	15.52	16.46	16.80	16.50	15.00	14.18	13.35	13.50	13.50	13.50
Inedible tallow, Chicago (cts./lb.)	13.54	13.26	14.37	15.25	15.94	15.00	15.11	14.95	14.25	14.47
<b>Import commodities</b>										
Coffee, N.Y. spot (\$/lb.)	0.81	0.71	0.50	0.40	0.51	0.53	0.52	0.61	0.63	0.68
Rubber, N.Y. spot (cts./lb.)	46.28	45.73	46.25	46.86	44.17	43.78	43.78	43.30	43.85	44.54
Cocoa beans, N.Y. (\$/lb.)	0.55	0.52	0.47	0.47	0.43	0.42	0.41	0.45	0.48	0.53

Information contact: Mary Teymourian (202) 219-0824

**Table 25.—Indexes of Real Trade-Weighted Dollar Exchange Rates <sup>1/</sup>**

	1992		1993								
	Nov	Dec	Jan	Feb	Mar	Apr P	May P	June P	July P	Aug P	Sept P
	1985 = 100										
Total U.S. trade 2/	65.6	65.8	67.3	68.4	68.3	66.1	66.9	66.8	68.7	68.7	67.0
<b>Agricultural trade</b>											
U.S. markets	77.6	77.3	78.2	78.4	78.3	77.0	77.3	76.3	77.3	76.9	73.5
U.S. competitors	77.7	77.4	78.3	78.6	79.1	78.4	78.9	78.7	79.5	80.1	80.1
<b>Wheat</b>											
U.S. markets	96.5	95.9	97.3	98.1	99.8	98.8	99.7	93.9	94.2	93.4	93.0
U.S. competitors	73.3	73.3	74.1	73.7	73.0	72.6	72.9	74.9	75.6	76.6	76.8
<b>Soybeans</b>											
U.S. markets	64.6	64.2	65.6	65.9	65.5	63.9	64.3	64.4	65.8	65.5	64.2
U.S. competitors	53.6	53.0	53.3	53.7	53.9	53.8	54.0	50.3	50.0	50.0	50.6
<b>Corn</b>											
U.S. markets	69.2	68.9	69.6	69.3	68.6	67.1	67.1	66.6	67.4	66.8	66.6
U.S. competitors	57.5	57.2	57.5	57.7	57.6	56.3	56.4	57.6	58.8	59.0	57.6
<b>Cotton</b>											
U.S. markets	73.3	73.4	74.1	74.1	73.6	72.4	72.6	71.3	72.0	71.5	62.1
U.S. competitors	110.7	108.4	110.5	110.2	110.4	110.0	110.3	107.2	107.3	106.9	107.2

<sup>1/</sup> Real indexes adjust nominal exchange rates for differences in rates of inflation, to avoid the distortion caused by high-inflation countries. A higher value means the dollar has appreciated. See the October 1988 issue of Agricultural Outlook for a discussion of the calculations and the weights used. <sup>2/</sup> Federal Reserve Board Index of trade-weighted value of the U.S. dollar against 10 major currencies. Weights are based on relative importance in world financial markets. P = preliminary.

Information contact: Tim Baxter (202) 219-0716

**Table 26.—Trade Balance**

	Fiscal year 1/								Aug
	1986	1987	1988	1989	1990	1991	1992	1993 F	1993
	\$ million								
<b>Exports</b>									
Agricultural	26,312	27,876	35,318	39,590	40,220	37,609	42,417	42,500	2,946
Nonagricultural	179,291	202,911	258,656	301,269	326,059	356,882	377,278	—	31,612
Total 2/	205,603	230,787	293,972	340,859	366,279	394,291	419,695	—	34,558
<b>Imports</b>									
Agricultural	20,884	20,650	21,014	21,476	22,560	22,588	24,323	25,000	1,895
Nonagricultural	342,846	367,374	408,138	441,075	458,101	463,720	487,554	—	45,906
Total 3/	363,730	388,024	430,152	462,551	480,661	486,308	511,877	—	47,801
<b>Trade balance</b>									
Agricultural	5,428	7,226	14,302	18,114	17,660	15,021	18,094	17,500	1,051
Nonagricultural	-163,555	-184,463	-150,482	-139,806	-132,042	-107,038	-110,276	—	-14,294
Total	-158,127	-157,237	-136,180	-121,692	-114,382	-92,017	-92,182	—	-13,243

<sup>1/</sup> Fiscal years begin October 1 & end September 30. Fiscal year 1992 began Oct. 1, 1991 & ended Sept. 30, 1992. <sup>2/</sup> Domestic exports including Department of Defense shipments (F.A.S. value). <sup>3/</sup> Imports for consumption (customs value). F = forecast — = not available.

Information contact: Joel Greene (202) 219-0822.



Table 27.—U.S. Agricultural Exports &amp; Imports

	Fiscal year*			Aug	Fiscal year*			Aug
	1991	1992	1993 F	1993	1991	1992	1993 F	1993
	1,000 units				\$ million			
EXPORTS								
Animals, live (no.) 1/	1,235	1,477	—	95	546	567	—	22
Meats & preps., excl. poultry (mt)	936	1,108	2/ 900	93	2,773	3,236	—	273
Dairy products (mt) 1/	44	172	—	17	293	638	900	60
Poultry meats (mt)	628	795	900	99	737	915	—	97
Fats, oils, & greases (mt)	1,169	1,392	1,400	100	419	498	—	36
Hides & skins incl. furskins	—	—	—	—	1,451	1,337	—	108
Cattle hides, whole (no.) 1/	21,548	20,822	—	1,776	1,191	1,107	—	91
Mink pelts (no.) 1/	3,941	3,160	—	130	74	52	—	3
Grains & feeds (mt)	94,583	100,744	—	7,039	12,175	13,858	3/ 14,300	965
Wheat (mt)	26,792	34,287	35,500	2,735	2,867	4,318	4/ 4,800	330
Wheat flour (mt)	987	818	1,100	35	191	165	—	9
Rice (mt)	2,395	2,279	2,500	249	747	757	800	65
Feed grains, incl. products (mt)	52,353	50,648	50,800	3,070	5,790	5,793	5,200	332
Feeds & fodders (mt)	10,943	11,267	5/ 11,800	841	1,882	2,019	—	157
Other grain products (mt)	1,113	1,449	—	110	697	807	—	73
Fruits, nuts, & preps. (mt)	2,849	3,505	—	273	3,038	3,514	3,600	293
Fruit juices incl.	—	—	—	—	—	—	—	—
froz. (1,000 hectoliters) 1/	6,311	7,767	—	711	338	427	—	38
Vegetables & preps. (mt)	2,590	2,704	—	197	2,597	2,790	—	250
Tobacco, unmanufactured (mt)	239	246	—	10	1,533	1,568	1,500	69
Cotton, excl. linters (mt)	1,565	1,494	1,200	62	2,605	2,183	1,400	84
Seeds (mt)	514	701	—	17	617	659	700	31
Sugar, cane or beet (mt)	589	492	—	18	219	154	—	6
Oilseeds & products (mt)	22,295	28,642	—	1,104	5,643	7,156	7,500	334
Oilseeds (mt)	15,815	19,970	—	708	3,807	4,743	—	200
Soybeans (mt)	15,139	19,247	20,500	670	3,465	4,311	4,600	174
Protein meal (mt)	5,628	7,022	—	270	1,113	1,431	—	53
Vegetable oils (mt)	1,051	1,650	—	126	723	982	—	81
Essential oils (mt)	13	13	—	1	183	184	—	15
Other	499	490	—	7	2,441	2,733	—	264
Total	128,513	142,498	147,000	9,037	37,609	42,417	42,500	2,946
IMPORTS								
Animals, live (no.) 1/	3,168	2,830	—	216	1,131	1,275	1,700	109
Meats & preps., excl. poultry (mt)	1,191	1,134	—	100	3,016	2,684	—	250
Beef & veal (mt)	811	813	800	70	2,025	1,933	1,900	179
Pork (mt)	322	263	270	25	865	625	700	58
Dairy products (mt) 1/	231	232	—	19	767	816	900	73
Poultry & products 1/	—	—	—	—	119	132	—	10
Fats, oils, & greases (mt)	33	46	—	4	19	28	—	3
Hides & skins, incl. furskins 1/	—	—	—	—	153	185	—	9
Wool, unmanufactured (mt)	50	54	—	3	175	167	—	9
Grains & feeds (mt)	4,169	5,446	4,700	456	1,282	1,546	1,600	148
Fruits, nuts, & preps., excl. juices (mt)	5,650	5,883	5,990	480	2,741	2,919	—	219
Bananas & plantains (mt)	3,399	3,626	3,700	348	993	1,083	1,100	96
Fruit juices (1,000 hectoliters) 1/	27,948	26,049	24,000	3,127	737	871	—	69
Vegetables & preps. (mt)	2,416	2,171	—	151	2,183	2,125	2,500	148
Tobacco, unmanufactured (mt)	215	364	400	29	698	1,299	1,200	57
Cotton, unmanufactured (mt)	18	11	—	1	18	10	—	1
Seeds (mt)	169	174	200	6	173	214	200	14
Nursery stock & cut flowers 1/	—	—	—	—	538	578	—	60
Sugar, cane or beet (mt)	1,785	1,623	—	96	717	633	—	40
Oilseeds & products (mt)	2,077	2,330	—	198	959	1,124	1,200	94
Oilseeds (mt)	445	429	—	27	151	135	—	11
Protein meal (mt)	412	629	—	66	57	84	—	10
Vegetable oils (mt)	1,220	1,273	—	104	750	904	—	73
Beverages excl. fruit juices (1,000 hectoliters) 1/	12,987	13,739	—	1,301	1,858	2,044	—	164
Coffee, tea, cocoa, spices (mt)	2,045	2,391	2,210	159	3,294	3,415	—	225
Coffee, incl. products (mt)	1,116	1,330	1,200	83	1,831	1,798	1,500	110
Cocoa beans & products (mt)	700	773	740	58	1,019	1,122	1,000	79
Rubber & allied gums (mt)	792	920	1,000	79	664	756	900	67
Other	—	—	—	—	1,348	1,503	—	123
Total	—	—	—	—	22,588	24,323	25,000	1,895

\*Fiscal years begin Oct. 1 and end Sept. 30. Fiscal year 1992 began Oct. 1, 1991 and ended Sept. 30, 1992. 1/ Not included in total volume and also other dairy products for 1991 & 1992. 2/ Forecasts for footnoted items 2/-6/ are based on slightly different groups of commodities. Fiscal 1991 exports of categories used in the 1991 forecasts were 2/ 876,000 m. tons. 3/ 16,014 million. 4/ 4,426 million i.e. includes flour. 5/ 11,065 million m. tons. 6/ Less than \$500. F = forecast. — = not available.

Information contact: Joel Greene (202) 219-0822.

Table 28.—U.S. Agricultural Exports by Region

Region & country	Fiscal year*			Aug	Change from year* earlier			Aug
	1991	1992	1993 F	1993	1991	1992	1993 F	1993
	\$ million				Percent			
<b>WESTERN EUROPE</b>	7,312	7,740	7,900	392	-1	6	3	-11
European Community (EC-12)	6,776	7,194	7,300	351	-1	6	1	-12
Belgium-Luxembourg	464	461	—	28	9	-1	—	-10
France	571	618	—	28	22	8	—	-17
Germany	1,135	1,091	—	85	2	-4	—	-10
Italy	675	684	—	20	-4	1	—	-10
Netherlands	1,561	1,813	—	66	-5	16	—	-27
United Kingdom	863	882	—	79	16	0	—	6
Portugal	251	240	—	13	-26	-4	—	-28
Spain, incl. Canary Islands	855	951	—	21	-12	11	—	-33
Other Western Europe	536	546	500	42	9	2	0	3
Switzerland	194	187	—	9	13	-4	—	5
<b>EASTERN EUROPE</b>	306	222	500	24	-36	-28	150	41
Poland	46	49	—	7	-54	6	—	44
Yugoslavia	74	50	—	2	-43	-32	—	-27
Romania	82	76	—	3	-61	-8	—	-62
<b>Former USSR</b>	1,758	2,691	1,600	76	-42	53	-41	-59
<b>ASIA</b>	16,094	17,782	15,700	1,338	-11	10	-12	1
West Asia (Mideast)	1,430	1,770	1,900	128	-28	24	6	-15
Turkey	224	344	—	25	-14	54	—	104
Iraq	0	0	0	0	-100	0	0	0
Israel, incl. Gaza & W. Bank	287	346	300	24	1	20	—	-34
Saudi Arabia	536	549	400	36	7	2	-20	-19
South Asia	375	536	—	50	-48	43	—	-44
Bangladesh	67	123	—	1	-44	83	—	-77
India	94	117	—	19	-19	24	—	-4
Pakistan	144	226	200	17	-63	57	0	-61
China	668	691	400	12	-27	3	-43	-36
Japan	7,736	8,383	8,200	683	-5	8	-2	8
Southeast Asia	1,239	1,470	—	95	5	19	—	-6
Indonesia	279	353	—	22	4	27	—	-9
Philippines	373	443	500	26	6	19	25	-36
Other East Asia	4,646	4,934	4,900	370	-11	6	0	9
Taiwan	1,739	1,916	2,000	157	-4	10	5	26
Korea, Rep.	2,159	2,200	2,000	139	-20	2	-9	-10
Hong Kong	745	817	900	70	9	10	13	18
<b>AFRICA</b>	1,882	2,304	2,800	161	-6	22	22	-28
North Africa	1,386	1,412	1,800	101	-9	2	29	1
Morocco	129	156	—	13	-21	21	—	-35
Algeria	477	478	500	16	-3	0	0	-14
Egypt	692	709	800	66	-9	2	14	18
Sub-Saharan	496	892	1,000	60	2	80	11	-52
Nigeria	44	31	—	21	38	-30	—	1,894
Rep. S. Africa	74	328	—	9	-9	345	—	-86
<b>LATIN AMERICA &amp; CARIBBEAN</b>	5,499	6,438	6,700	490	7	17	5	4
Brazil	271	143	300	17	158	-47	200	187
Caribbean Islands	1,010	970	—	70	0	-4	—	-2
Central America	498	587	—	51	8	18	—	75
Colombia	124	142	—	10	-16	14	—	-8
Mexico	2,885	3,676	3,800	247	8	27	3	-4
Peru	150	179	—	19	-20	19	—	76
Venezuela	307	394	400	31	-11	28	0	-27
<b>CANADA</b>	4,409	4,812	5,100	418	19	9	6	7
<b>OCEANIA</b>	349	428	400	44	10	23	0	44
<b>TOTAL</b>	37,609	42,417	42,500	2,948	-6	13	0	-5
Developed countries	20,106	21,969	22,100	1,563	2	9	0	-1
Developing countries	16,831	19,758	—	1,367	-14	17	—	-8
Other countries	672	691	—	16	-26	3	—	-18

\*Fiscal years begin Oct. 1 & end Sept. 30. Fiscal year 1992 began Oct. 1, 1991 & ended Sept. 30, 1992. F = forecast. — = not available.  
 Note: Adjusted for transshipments through Canada.

Information contact: Joel Greene (202) 219-0822.



## Farm Income

Table 29.—Farm Income Statistics

	Calendar year										1993 F
	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992 P	
	\$ billion										
1. Farm receipts	141.9	147.7	150.1	140.0	148.5	158.4	168.9	177.5	176.5	178	178 to 185
Crops (incl. net CCC loans)	67.2	69.9	74.3	63.7	65.9	71.7	77.0	80.1	81.9	85	83 to 88
Livestock	69.6	72.9	69.8	71.6	76.0	79.4	84.1	89.8	86.8	86	86 to 90
Farm related 1/	5.1	4.9	6.0	5.7	6.6	7.3	7.8	7.6	7.8	7	6 to 8
2. Direct Government payments	9.3	8.4	7.7	11.8	16.7	14.5	10.9	9.3	8.2	9	11 to 15
Cash payments	4.1	4.0	7.8	8.1	6.9	7.1	9.1	8.4	8.2	9	11 to 15
Value of PIK commodities	5.2	4.5	0.1	3.7	10.1	7.4	1.7	0.9	0.0	0	0 to 1
3. Gross cash income (1+2) 2/	151.1	156.1	157.9	152.8	165.1	172.9	179.8	186.8	184.7	188	190 to 198
4. Nonmoney income 3/	13.6	5.9	5.8	5.5	5.6	8.3	6.3	6.2	6.9	6	8 to 7
5. Value of inventory change	-10.9	6.0	-2.3	-2.2	-2.3	-3.4	4.8	3.4	-0.3	4	-5 to -1
6. Total gross farm income (3+4+5)	153.9	168.0	161.2	156.1	168.5	175.8	190.9	196.4	190.3	197	193 to 202
7. Cash expenses 4/	112.8	118.7	110.7	105.0	109.4	118.4	125.1	130.9	131.4	130	128 to 134
8. Total expenses	139.9	141.9	132.4	125.1	128.8	137.0	144.0	149.9	150.3	149	146 to 155
9. Net cash income (3-7)	38.4	37.4	47.1	47.8	55.8	54.5	54.7	55.9	53.3	57	58 to 67
10. Net farm income (6-8)	14.2	26.1	28.8	31.0	39.7	38.8	46.9	46.5	40.0	48	43 to 50
Deflated (1987\$)	18.3	28.7	30.5	32.0	39.7	37.3	43.3	41.1	34.0	39	34 to 41

1/ Income from machine hire, custom work, sales of forest products, & other miscellaneous cash sources. 2/ Numbers in parentheses indicate the combination of items required to calculate a given item. 3/ Value of home consumption of self-produced food & imputed gross rental value of farm dwellings. 4/ Excludes capital consumption, perquisites to hired labor, & farm household expenses. Total may not add because of rounding. F = forecast.  
Note: 1988-92 accounts (primarily expenses) have been revised to reflect improved methods for estimating farm income. Call contact for information.

Information contact: Robert McElroy (202) 219-0800.

Table 30.—Average Income to Farm Operator Households

	Calendar year					1993 F
	1988	1989	1990	1991	1992 P	
	\$ per operator household					
Farm income to household 1/	4,201	5,796	5,742	4,397	4,337	—
Self-employment farm income	3,836	4,723	4,973	2,283	2,829	—
Other farm income to household	364	1,073	768	2,114	2,010	—
Plus: Total off-farm income	28,829	26,223	33,265	31,838	35,731	—
Income from wages, salaries, and non-farm businesses	22,220	19,467	24,778	23,551	27,022	—
Income from interest, dividends, transfer payments, etc.	6,610	6,756	8,487	8,087	8,709	—
Equals: Farm operator household income	33,030	32,019	39,007	36,025	40,068	—

1/ Farm income to the household equals self-employment income plus amounts that operators pay themselves & family members to work on the farm. Income from renting out acreage, & net income from a farm business other than the one being surveyed. Data for 1988-90 are based on surveys that did not fully account for small farms. Data for 1991 include an additional 350,000 farms, many with gross sales under \$10,000 & negative net farm incomes. P = preliminary. F = forecasts, not available at this time.

Information contact: Janet Perry (202) 219-0807.

Table 31.—Balance Sheet of the U.S. Farming Sector

	Calendar year 1/										
	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992F	1993 F
	\$ billion										
<b>Assets</b>											
Real estate	753.4	661.8	588.2	542.3	578.9	595.5	615.7	628.2	623.2	633	640 to 650
Non-real estate	189.8	195.2	186.5	182.1	193.7	205.6	214.1	220.2	220.7	228	225 to 235
Livestock & poultry	49.5	49.5	46.3	47.8	58.0	62.2	66.2	70.9	68.1	71	70 to 74
Machinery & motor vehicles	85.8	85.0	82.9	81.5	80.0	81.2	85.1	85.4	85.8	86	83 to 87
Crops stored 2/	23.6	26.1	22.9	16.3	17.5	23.3	23.4	22.8	23.6	24	23 to 27
Purchased inputs	—	2.0	1.2	2.1	3.1	3.5	2.6	2.8	2.8	4	2 to 4
Financial assets	30.9	32.6	33.3	34.5	35.1	35.4	36.6	38.3	40.6	43	43 to 47
Total farm assets	943.2	857.0	772.7	724.4	772.6	801.1	829.8	848.4	843.9	861	870 to 880
<b>Liabilities</b>											
Real estate debt 3/	103.2	106.7	100.1	90.4	82.4	77.6	75.4	73.7	74.4	75	73 to 77
Non-real estate debt 4/	87.9	87.1	77.5	66.6	62.0	61.7	61.8	63.1	64.3	63	63 to 67
Total farm debt	191.1	193.8	177.6	157.0	144.4	139.4	137.2	136.8	138.8	138	137 to 143
Total farm equity	752.2	663.3	595.1	567.5	628.2	661.6	692.6	711.6	705.1	723	730 to 740
	Percent										
<b>Selected ratios</b>											
Debt-to-assets	20.3	22.6	23.0	21.7	18.7	17.4	16.5	16.1	16.4	16	15 to 17
Debt-to-equity	25.5	29.2	29.8	27.7	23.0	21.1	19.8	19.2	19.7	19	18 to 20
Debt-to-net cash income	498	518	377	328	259	256	251	245	260	244	220 to 230

1/ As of Dec. 31. 2/ Non-CCC crops held on farms plus value above loan rates for crops held under CCC. 3/ Excludes debt on operator dwellings, but includes CCC storage and drying facilities loans. 4/ Excludes debt for nonfarm purposes. F = forecast

Information contacts: Ken Erickson or Jim Ryan (202) 219-0798.



Table 32.—Cash Receipts From Farm Marketings, by State

Region & State	Livestock & products				Crops 1/				Total 1/			
	1991	1992	July 1993	Aug 1993	1991	1992	July 1993	Aug 1993	1991	1992	July 1993	Aug 1993
	\$ million 2/											
<b>NORTH ATLANTIC</b>												
Maine	292	301	25	27	192	213	15	25	484	513	41	52
New Hampshire	63	65	5	5	79	79	5	8	142	144	10	13
Vermont	370	389	31	30	84	63	9	3	434	452	40	33
Massachusetts	129	135	11	11	358	356	25	36	485	491	36	47
Rhode Island	12	13	1	1	57	60	4	2	69	72	5	4
Connecticut	208	240	21	24	264	249	19	16	472	489	40	40
New York	1,793	1,914	158	150	1,081	1,032	78	108	2,874	2,946	236	258
New Jersey	193	192	16	16	465	465	66	57	658	657	82	73
Pennsylvania	2,405	2,554	202	202	997	1,084	78	94	3,402	3,618	280	296
<b>NORTH CENTRAL</b>												
Ohio	1,681	1,580	136	141	2,484	2,587	220	148	4,165	4,167	356	289
Indiana	1,917	1,821	156	181	2,583	2,684	197	165	4,500	4,505	353	346
Illinois	2,353	2,202	176	198	5,181	5,431	363	383	7,534	7,634	539	581
Michigan	1,288	1,325	113	101	1,922	1,962	176	124	3,210	3,286	289	226
Wisconsin	4,191	4,313	348	333	1,225	1,186	90	104	5,417	5,499	438	436
Minnesota	3,593	3,622	306	309	3,788	3,480	178	189	7,378	7,082	485	499
Iowa	5,720	5,614	433	519	4,529	4,716	376	387	10,250	10,330	809	906
Missouri	2,268	2,188	190	205	1,842	1,935	118	110	3,911	4,123	308	315
North Dakota	670	755	29	47	1,877	2,339	152	244	2,547	3,094	180	291
South Dakota	2,125	1,966	114	140	1,188	1,283	109	103	3,314	3,229	223	243
Nebraska	5,933	5,674	478	638	3,111	3,109	194	148	9,044	8,783	672	785
Kansas	4,800	4,558	381	384	2,276	2,442	343	175	7,076	7,000	724	559
<b>SOUTHERN</b>												
Delaware	438	451	39	41	184	184	12	22	622	636	51	64
Maryland	788	804	69	72	564	587	61	36	1,352	1,391	129	108
Virginia	1,363	1,353	106	125	753	781	81	93	2,116	2,134	187	219
West Virginia	253	267	19	22	71	75	7	8	324	343	26	30
North Carolina	2,617	2,795	261	258	2,339	2,386	115	386	4,956	5,181	376	644
South Carolina	549	545	41	47	677	632	38	79	1,226	1,177	79	127
Georgia	2,162	2,309	221	217	1,772	1,764	89	157	3,934	4,073	310	374
Florida	1,172	1,160	99	118	4,953	4,985	212	191	6,125	6,145	311	309
Kentucky	1,705	1,641	287	124	1,491	1,580	47	30	3,196	3,221	334	154
Tennessee	1,044	1,061	89	118	893	1,042	34	39	1,936	2,103	123	157
Alabama	2,237	2,063	173	198	770	768	38	25	3,007	2,830	211	222
Mississippi	1,276	1,355	127	137	1,108	1,247	28	17	2,383	2,602	156	154
Arkansas	2,664	2,702	242	262	1,578	1,901	33	38	4,242	4,602	275	300
Louisiana	636	587	60	62	1,092	1,259	19	34	1,728	1,846	79	96
Oklahoma	2,788	2,498	252	282	1,068	1,137	175	126	3,856	3,635	428	408
Texas	7,881	7,523	727	789	4,336	4,097	453	375	12,217	11,620	1,180	1,164
<b>WESTERN</b>												
Montana	810	921	25	25	704	821	31	53	1,514	1,742	56	78
Idaho	1,065	1,173	86	114	1,586	1,843	61	120	2,651	2,816	147	234
Wyoming	668	606	17	38	169	167	7	23	837	773	24	61
Colorado	2,663	2,955	216	209	1,099	1,083	99	110	3,762	4,038	315	318
New Mexico	978	1,040	67	78	474	490	60	52	1,452	1,530	127	130
Arizona	786	892	67	78	1,081	943	54	31	1,867	1,835	121	109
Utah	550	556	47	44	171	182	16	13	721	738	63	57
Nevada	209	202	13	19	88	71	6	7	297	273	19	26
Washington	1,299	1,532	117	133	2,844	2,922	178	314	4,143	4,454	296	447
Oregon	826	795	57	67	1,699	1,895	177	189	2,525	2,490	235	256
California	5,254	5,055	487	484	12,523	13,179	1,069	1,067	17,777	18,234	1,557	1,551
Alaska	6	6	0	0	20	20	2	2	27	25	2	3
Hawaii	88	88	7	7	474	476	41	41	562	564	48	49
<b>UNITED STATES</b>	<b>86,780</b>	<b>86,358</b>	<b>7,352</b>	<b>7,832</b>	<b>81,942</b>	<b>84,810</b>	<b>6,060</b>	<b>6,306</b>	<b>168,721</b>	<b>171,168</b>	<b>13,412</b>	<b>14,138</b>

1/ Sales of farm products include receipts from commodities placed under nonrecourse CCC loans, plus additional gains realized on redemptions during the period. 2/ Estimates as of end of current month. Totals may not add because of rounding.

Information contact: Roger Strickland (202) 219-0806. To receive current monthly cash receipts via mail or E-mail contact Linda Farmer at (202) 219-0804.

Table 33.—Cash Receipts From Farming

	Annual						1992	1993				
	1987	1988	1989	1990	1991	1992	Aug	Apr	May	June	July	Aug
	\$ million											
Farm marketings & CCC loans*	141,844	151,154	161,183	169,973	168,721	171,168	13,615	12,262	12,575	12,213	13,341	14,138
Livestock & products	75,993	79,434	84,122	89,843	86,780	86,358	7,535	7,840	7,827	7,060	7,352	7,832
Meat animals	44,478	46,492	48,857	51,911	51,089	48,427	4,261	4,365	4,510	3,799	3,903	4,850
Dairy products	17,727	17,641	19,396	20,149	18,037	19,848	1,702	1,734	1,793	1,675	1,647	1,560
Poultry & eggs	11,515	12,868	15,372	15,243	15,122	15,441	1,370	1,361	1,339	1,388	1,424	1,419
Other	2,274	2,433	2,498	2,540	2,531	2,642	202	180	186	200	378	204
Crops	65,851	71,720	77,040	80,130	81,942	84,810	6,080	4,623	4,748	5,153	5,989	6,306
Food grains	5,790	7,469	8,247	7,517	7,410	8,890	908	223	258	1,097	1,205	900
Feed crops	14,835	14,263	17,054	18,671	19,491	20,073	1,302	842	847	1,100	1,512	1,471
Cotton (lint & seed)	4,189	4,546	5,033	5,489	5,236	5,207	102	103	34	50	18	65
Tobacco	1,816	2,083	2,415	2,741	2,886	2,961	498	5	0	0	63	505
Oil-bearing crops	11,283	13,500	11,866	12,258	12,700	12,998	447	402	778	584	591	604
Vegetables & melons	9,898	9,818	11,596	11,449	11,552	11,436	1,223	1,239	1,390	1,027	928	1,192
Fruits & tree nuts	8,065	9,027	9,173	9,440	9,888	10,183	869	371	353	584	937	844
Other	10,176	10,993	11,657	12,568	12,778	13,065	731	1,437	1,087	710	733	725
Government payments	16,747	14,480	10,887	9,298	8,214	9,169	63	2,001	945	356	107	70
Total	156,591	165,582	171,014	179,218	175,506	179,338	13,878	14,263	13,520	12,569	13,448	14,208

\* Sales of farm products include receipts from commodities placed under nonrecourse CCC loans, plus additional gains realized on redemptions during the period.

Information contact: Roger Strickland (202) 219-0806. To receive current monthly cash receipts via mail or E-Mail contact Linda Farmer at (202) 219-0804.

Table 34.—Farm Production Expenses

	Calendar year									
	1984	1985	1986	1987	1988	1989	1990	1991	1992P	1993F
	\$ million									
Feed purchased	19,383	16,949	17,472	17,463	20,248	20,744	20,387	19,330	19,832	18,000 to 22,000
Livestock & poultry purchased	9,487	9,184	9,758	11,842	12,784	13,138	14,833	14,272	13,780	12,000 to 16,000
Seed purchased	3,386	3,128	3,188	3,259	4,062	4,400	4,521	5,119	4,918	4,000 to 6,000
Farm-origin inputs	32,256	29,261	30,418	32,564	37,071	38,281	39,742	38,722	38,531	37,000 to 41,000
Fertilizer & lime	8,380	7,512	6,820	6,453	7,681	8,177	8,210	8,671	8,340	7,000 to 9,000
Fuels & oils	7,298	6,436	5,310	4,957	4,800	4,772	5,790	5,599	5,311	4,000 to 7,000
Electricity	2,060	1,878	1,795	2,156	2,360	2,648	2,607	2,634	2,611	2,000 to 4,000
Pesticides	4,688	4,334	4,324	4,512	4,146	5,013	5,364	6,324	6,475	6,000 to 8,000
Manufactured inputs	22,404	20,169	18,249	18,078	18,987	20,610	21,971	23,229	22,736	21,000 to 25,000
Short-term interest	10,396	8,735	7,367	6,767	6,674	6,660	6,528	6,124	5,793	4,000 to 7,000
Real estate interest 1/	10,733	9,878	9,131	8,205	7,581	7,190	6,740	5,963	5,592	5,000 to 7,000
Total interest charges	21,129	18,613	16,498	14,972	14,255	13,850	13,268	12,088	11,385	10,000 to 14,000
Repair & maintenance 1/	6,418	6,370	6,428	6,759	7,717	8,407	8,553	8,630	8,469	8,000 to 10,000
Contract & hired labor	9,427	10,008	9,484	9,975	10,954	11,928	13,950	13,928	14,060	12,000 to 16,000
Machine hire & custom work	2,566	2,354	2,099	2,105	2,510	2,937	2,959	3,085	3,317	2,000 to 4,000
Marketing, storage, & transportation	4,012	4,127	3,652	4,078	3,516	4,208	4,211	4,719	4,542	3,000 to 5,000
Misc. operating expenses 1/ 2/	10,331	10,010	9,759	11,171	12,001	12,003	12,727	13,539	12,844	10,000 to 14,000
Other operating expenses	32,751	32,868	31,420	34,088	38,897	39,481	42,400	43,899	43,232	41,000 to 46,000
Capital consumption 1/	20,847	19,299	17,788	17,091	17,378	17,863	17,662	17,645	17,769	16,000 to 20,000
Taxes 1/	4,337	4,542	4,612	4,853	4,955	5,214	5,690	5,613	5,838	5,000 to 7,000
Net rent to nonoperator landlords	8,150	7,690	6,099	7,124	7,684	8,731	9,164	9,112	9,803	9,000 to 11,000
Other overhead expenses	33,334	31,531	28,499	29,069	30,016	31,807	32,517	32,370	33,210	32,000 to 35,000
Total production expenses	141,876	132,433	125,084	128,772	137,026	144,029	149,897	150,307	149,094	150,000 to 152,000

1/ Includes operator dwellings. 2/ Beginning in 1982, miscellaneous operating expenses include other livestock purchases, dairy assessments & feeding fees paid by nonoperators. Totals may not add because of rounding. P = preliminary. F = forecast.

Information contacts: Chris McGath (202) 219-0804, Robert McElroy (202) 219-0800.



Table 35.—CCC Net Outlays by Commodity &amp; Function

COMMODITY/PROGRAM	Fiscal year									
	1985	1986	1987	1988	1989	1990	1991	1992	1993 E	1994 E
	\$ million									
<b>COMMODITY/PROGRAM</b>										
<b>Feed grains</b>										
Corn	4,403 <sup>1</sup>	10,524	12,346	8,227	2,863	2,450	2,387	2,105	4,882	3,421
Grain sorghum	483	1,185	1,203	764	467	361	243	190	400	310
Barley	338	471	394	57	45	-93	71	174	203	133
Oats	2	26	17	-2	1	-5	12	32	15	12
Corn & oat products	7	5	7	7	8	8	9	9	9	7
<b>Total feed grains</b>	<b>5,211</b>	<b>12,211</b>	<b>13,967</b>	<b>9,053</b>	<b>3,384</b>	<b>2,721</b>	<b>2,722</b>	<b>2,510</b>	<b>5,509</b>	<b>3,883</b>
Wheat	4,891	3,440	2,836	678	53	806	2,958	1,719	2,424	2,304
Rice	990	947	908	128	631	667	667	715	1,035	955
Upland cotton	1,553	2,142	1,786	666	1,461	-79	382	1,443	2,304	2,329
Tobacco	455	253	-348	-453	-367	-307	-143	29	130	25
Dairy	2,085	2,337	1,166	1,295	679	505	839	232	315	249
Soybeans	711	1,597	-476	-1,676	-86	5	40	-29	9	-37
Peanuts	12	32	8	7	13	1	48	41	-11	4
Sugar	184	214	-65	-246	-25	15	-20	-19	-27	-24
Honey	81	89	73	100	42	47	19	17	15	15
Wool	109	123	152	1/ 5	93	104	172	191	176	196
Operating expense 3/	346	457	535	614	620	618	625	6	6	6
Interest expenditure	1,435	1,411	1,219	425	98	632	745	532	98	39
Export programs 4/	134	102	276	200	-102	-34	733	1,455	3,142	1,833
1989/93 Disaster/Tree/										
livestock assistance	0	0	0	0	3,919	2/ 161	121	1,054	1,389	2,346
Other	-314	486	371	1,665	110	609	2	-158	636	1,297
<b>Total</b>	<b>17,683</b>	<b>25,841</b>	<b>22,408</b>	<b>12,461</b>	<b>10,523</b>	<b>6,471</b>	<b>10,110</b>	<b>9,738</b>	<b>17,150</b>	<b>15,420</b>
<b>FUNCTION</b>										
Price-support loans (net)	6,272	13,628	12,199	4,579	-926	-399	418	584	2,152	1,366
Direct payments 5/										
Deficiency	6,302	6,166	4,833	3,971	5,798	4,178	6,224	5,491	6,573	7,307
Diversion	1,525	84	382	8	-1	0	0	0	0	0
Dairy termination	0	489	587	280	168	189	96	2	0	0
Loan Deficiency	0	27	60	0	42	3	21	214	385	425
Other	0	0	0	0	0	0	0	140	203	249
Disaster	0	0	0	6	4	0	0	0	0	0
<b>Total direct payments</b>	<b>7,827</b>	<b>6,746</b>	<b>5,862</b>	<b>4,245</b>	<b>6,011</b>	<b>4,370</b>	<b>6,341</b>	<b>5,847</b>	<b>9,161</b>	<b>7,981</b>
1988-93 crop disaster	0	0	0	0	3,386	2/ 5	6	960	1,328	2,342
Emergency livestock/tree/										
forage assistance	0	0	0	31	533	156	115	94	81	4
Purchases (net)	1,331	1,670	-479	-1,131	116	-48	646	321	453	376
Producer storage										
payments	329	485	832	658	174	185	1	14	12	69
Processing, storage,										
& transportation	657	1,013	1,659	1,113	659	317	394	185	121	135
Operating expense 3/	346	457	535	614	620	618	625	6	6	6
Interest expenditure	1,435	1,411	1,219	425	98	632	745	532	98	39
Export programs 4/	134	102	276	200	-102	-34	733	1,455	3,142	1,833
Other	-648	329	305	1,727	-46	669	86	-260	616	1,269
<b>Total</b>	<b>17,683</b>	<b>25,841</b>	<b>22,408</b>	<b>12,461</b>	<b>10,523</b>	<b>6,471</b>	<b>10,110</b>	<b>9,738</b>	<b>17,150</b>	<b>15,420</b>

1/ Fiscal 1988 wool & mohair program outlays were \$130,635,000 but include a one-time advance appropriation of \$126,198,000, which was recorded as a wool program receipt by Treasury. 2/ Approximately \$1.5 billion in benefits to farmers under the Disaster Assistance Act of 1989 were paid in generic certificates & were not recorded directly as disaster assistance outlays. 3/ Does not include CCC Transfers to General Sales Manager. 4/ Includes Export Guarantee Program, Direct Export Credit Program, CCC Transfers to the General Sales Manager, Market Promotion Program, starting in fiscal 1991 & starting in fiscal 1992 the Export Guarantee Program - Credit Reform, Export Enhancement Program, & Dairy Export Incentive Program. 5/ Includes cash payments only. Excludes payment-in-kind in fiscal 83-85 & generic certificates in fiscal 86-93. E = Estimated in the fiscal 1994 Mid-Session Review Budget which was released September 1, 1993 based on June, 1993 supply & demand estimates. These estimates incorporate the aggregate outlay impact of the FY 1993 Disaster Supplemental for the Midwest floods and the Omnibus Budget Reconciliation Act of 1993. The impact of the Disaster Act and the Reconciliation Act on outlay estimates for individual CCC commodities is not reflected in this table. Minus (-) indicates a net receipt (excess of repayments or other receipts over gross outlays of funds).

Information contact: Richard Pazdalski (202) 720-5148.

## Food Expenditures

Table 36.—Food Expenditures

	Annual			1993			1993 year-to-date		
	1990	1991	1992	Aug	Sept	Oct P	Aug	Sept	Oct P
\$ billion									
Sales 1/									
Off-premise use 2/	302.6	315.3	319.4	27.4	26.6	26.9	215.1	241.7	268.6
Meals & snacks 3/	225.3	232.4	240.4	21.8	20.8	22.1	167.6	188.4	210.5
1992 \$ billion									
Sales 1/									
Off-premise use 2/	312.9	317.6	319.3	28.9	26.0	26.1	211.1	237.1	263.2
Meals & snacks 3/	237.7	237.1	240.3	21.4	20.4	21.6	165.6	185.9	207.5
Percent change from year earlier (\$ bil.)									
Sales 1/									
Off-premise use 2/	8.9	4.2	1.3	0.9	2.3	-0.6	1.9	1.9	1.7
Meals & snacks 3/	7.2	3.2	3.4	2.9	5.4	5.0	5.2	5.2	5.2
Percent change from year earlier (1992 \$ bil.)									
Sales 1/									
Off-premise use 2/	2.2	1.5	0.5	-1.1	0.4	-3.1	-0.1	-0.1	-0.4
Meals & snacks 3/	2.4	-0.2	1.3	1.0	3.5	3.1	3.7	3.7	3.6

1/ Food only (excludes alcoholic beverages). Not seasonally adjusted. 2/ Excludes donations & home production. 3/ Excludes donations, child nutrition subsidies, & meals furnished to employees, patients, & inmates. R = revised P = preliminary.

NOTE: This table differs from Personal Consumption Expenditures (PCE), table 2, for several reasons: (1) this series includes only food excluding nonalcoholic beverages & pet food which are included in PCE; (2) this series is not seasonally adjusted, whereas PCE is seasonally adjusted at annual rates; (3) this series reports sales only, but PCE includes food produced & consumed on farms & food furnished to employees; (4) this series includes all sales of meals & snacks. PCE includes only purchases using personal funds, excluding business travel & entertainment. For a more complete discussion of the differences, see "Developing an Integrated Information System for the Food Sector," Agr. Econ. Rpt. No. 575, Aug 1987.

Information contact: Aiden Manchester (202) 219-0880.

## Transportation

Table 37.—Rail Rates; Grain & Fruit-Vegetable Shipments

	Annual			1992 Sept	1993					
	1990	1991	1992		Apr	May	June	July	Aug	Sept
Rail freight rate index 1/ (Dec. 1984=100)										
All products	107.5	109.3	109.9	109.9	110.8	110.7	110.7 P	110.7 P	110.8 P	110.9 P
Farm products	110.4	111.4	111.1	110.5	113.5	113.3	113.2 P	113.2 P	113.2 P	113.4 P
Grain	110.1	111.2	111.4	110.3	114.5	114.2	114.1 P	114.1 P	114.0 P	114.3 P
Food products	105.4	108.1	108.7	108.1	108.8	108.8	108.8 P	108.9 P	108.9 P	108.7 P
Grain shipments										
Rail carloadings (1,000 cars) 2/	27.6	26.6	27.2	25.8	28.0 P	24.7 P	24.7 P	25.9 P	25.6 P	25.9 P
Barge shipments (mil. ton) 3/	3.8	3.3	3.4	3.2	2.5	3.7	3.7	0.4	1.7	3.6
Fresh fruit & vegetable shipments 4/ 5/										
Piggy back (mil. cwt)	1.8	1.5	1.8	1.5	1.5	2.0	1.9	1.1	1.0	1.4
Rail (mil. cwt)	2.3	2.1	2.6	1.8	2.0	3.0	3.2	1.8	0.8	1.3
Truck (mil. cwt)	41.5	41.9	44.0	37.5	48.2	57.4	55.6	46.5	39.4	37.5
Cost of operating trucks hauling produce 4/										
Fleet operation (cts./mile)	130.5	126.5	124.1	125.1	127.0	127.3	127.2	127.0	126.2	125.8

1/ Department of Labor, Bureau of Labor Statistics. 2/ Weekly average; from Association of American Railroads. 3/ Shipments on Illinois & Mississippi waterways, U.S. Corps of Engineers. 4/ Agricultural Marketing Service, USDA. 5/ Preliminary data for 1993. P = preliminary. -- = not available.

Information contact: T.Q. Hutchinson (202) 219-0840.



## Food Supply &amp; Use

Table 38.—Per Capita Consumption of Major Food Commodities <sup>1/</sup>

Commodity	1985	1986	1987	1988	1989	1990	1991	1992 P
Pounds								
Red meats 2/3/4/	124.9	122.2	117.4	119.5	115.9	112.4	111.9	114.1
Beef	74.6	74.4	69.6	68.6	65.4	64.0	63.1	62.8
Veal	1.5	1.6	1.3	1.1	1.0	0.9	0.8	0.8
Lamb & mutton	1.1	1.0	1.0	1.0	1.1	1.1	1.0	1.0
Pork	47.7	45.2	45.6	48.8	48.4	46.4	46.9	49.5
Poultry 2/3/4/	45.2	47.1	50.7	51.7	53.8	55.9	58.0	60.1
Chicken	36.1	37.0	39.1	39.3	40.5	42.1	43.9	45.9
Turkey	9.1	10.2	11.6	12.4	13.1	13.8	14.1	14.2
Fish & shellfish 3/	15.0	15.4	16.1	15.1	15.8	15.0	14.8	14.7
Eggs 4/	32.9	32.6	32.7	31.6	30.4	30.1	30.0	30.2
Dairy products								
Cheese (excluding cottage) 2/5/	22.5	23.1	24.1	23.7	23.8	24.6	25.0	26.0
American	12.2	12.1	12.4	11.5	11.0	11.1	11.1	11.3
Italian	6.5	7.0	7.6	8.1	8.5	9.0	9.4	10.0
Other cheese 6/	3.9	4.0	4.1	4.1	4.3	4.6	4.6	4.7
Cottage cheese	4.1	4.1	3.9	3.9	3.6	3.4	3.3	3.1
Beverage milks 2/	229.7	228.6	226.5	222.4	224.3	221.7	221.2	218.5
Fluid whole milk 7/	123.4	118.6	111.9	105.7	97.6	90.4	87.4	84.1
Fluid lowfat milk 8/	93.7	98.6	100.6	100.5	106.5	108.4	109.9	109.4
Fluid skim milk	12.6	13.5	14.0	16.1	20.2	22.9	23.9	25.0
Fluid cream products 9/	6.7	7.0	7.1	7.1	7.3	7.1	7.3	7.5
Yogurt (excluding frozen)	4.1	4.4	4.4	4.7	4.3	4.1	4.2	4.3
Ice cream	18.1	18.4	18.4	17.3	18.1	15.6	16.3	16.4
Ice milk	6.9	7.2	7.4	8.0	8.4	7.7	7.4	7.1
Frozen yogurt	—	—	—	—	2.0	2.8	3.5	3.1
All dairy products, milk equivalent, milkfat basis 10/	593.8	591.5	601.3	582.9	585.2	569.7	565.2	564.6
Fats & oils — Total fat content	64.3	64.4	62.9	63.0	60.4	62.2	63.8	65.6
Butter & margarine (product weight)	15.7	16.0	15.2	14.8	14.6	15.3	14.8	15.2
Shortening	22.9	22.1	21.4	21.5	21.5	22.2	22.4	22.4
Lard & edible tallow (direct use)	3.7	3.5	2.7	2.6	2.1	2.5	3.1	4.1
Salad & cooking oils	23.5	24.2	25.4	25.8	24.0	24.2	25.2	25.6
Fresh fruits 11/	110.6	117.4	121.6	120.7	123.1	118.8	113.2	122.7
Canned fruit 12/	12.7	12.9	13.6	13.3	13.3	13.5	12.3	14.4
Dried fruit	2.9	2.7	3.1	3.3	3.2	3.6	3.1	3.2
Frozen fruit	3.3	3.6	3.9	3.8	4.6	4.3	3.9	4.7
Selected fruit juices 13/	66.9	65.0	70.0	64.7	67.0	59.6	63.8	59.6
Vegetables 11/								
Fresh	103.0	100.5	107.0	111.5	115.5	113.3	110.4	109.3
Canning	95.1	95.6	95.1	91.2	98.7	101.7	103.4	106.3
Freezing	19.6	18.5	19.3	21.1	20.7	20.5	21.6	20.8
Potatoes, all 11/	122.4	126.0	125.9	122.5	127.1	127.8	130.6	133.5
Sweet potatoes 11/	5.4	4.4	4.4	4.1	4.1	4.6	4.0	4.3
Peanuts (shelled)	6.3	6.4	6.4	6.9	7.0	6.0	6.5	6.4
Tree nuts (shelled)	2.3	2.2	2.2	2.3	2.4	2.8	2.3	2.4
Flour & cereal products 14/	156.1	162.1	170.6	173.7	175.4	183.5	185.4	187.0
Wheat flour	124.7	125.7	130.0	130.0	129.6	135.8	136.5	138.3
Rice (milled basis)	9.0	11.6	14.0	14.3	15.2	16.2	16.8	16.8
Caloric sweeteners 15/	131.3	129.6	133.7	135.1	137.3	140.7	141.7	143.3
Coffee (green bean equiv.)	10.5	10.5	10.2	9.8	10.1	10.3	10.5	10.6
Cocoa (chocolate liquor equiv.)	3.7	3.8	3.8	3.8	4.0	4.3	4.6	4.6

1/ In pounds, retail weight unless otherwise stated. Consumption normally represents total supply minus exports, nonfood use, & ending stocks. Calendar-year data except fresh citrus fruits, peanuts, tree nuts, & rice, which are on crop-year basis. 2/ Total may not add due to rounding. 3/ Boneless, trimmed weight. Chicken series revised to exclude amount of ready-to-cook chicken going to pet food as well as some water leakage that occurs when chicken is cut up before packaging. 4/ Excludes shipments to the U.S. territories. 5/ Natural equivalent of cheese & cheese & other dairy products. Includes miscellaneous cheese not shown separately. 6/ Includes Swiss, Brick, Munster, cream, Neufchatel, Blue, Gorgonzola, Edam, & Gouda. 7/ Plain & flavored. 8/ Plain & flavored & buttermilk. 9/ Heavy cream, light cream, half & half, & sour cream & dip. 10/ Includes condensed & evaporated milk & dry milk products. 11/ Farm weight. 12/ Excludes pineapples & berries. 13/ Single strength equivalent. 14/ Includes rye, corn, oat, & barley products. Excludes quantities used in alcoholic beverages, corn sweeteners, & fuel. 15/ Dry weight equivalent. — not available. P = Preliminary.

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